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Nuptiality in Thailand: a cross-sectional analysis of the 1970 Census

Aphichat Chamratrithirong

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PREFACE

This research project was made possible by a grant from the Southeast Asia Population Research Awards Program (SEAPRAP), International Development Research Center, Asian Regional Office, Singapore. I wish to express my appreciation to the staff of the Office and particularly to Dr. Pedro V. Flores, former project coordinator, and Dr. Wilfredo F. Arce, current program coordinator.

The National Statistical Office of Thailand supplied the data on which this study was based. Special thanks are due to Mrs. Anuri Wanglee, deputy secretary-general of the National Statistical Office, and to Mrs. Samruay Chotechanapibal, Mrs. Supani Boonpratuang, and Mr. Pichai Saisombat for their useful advice and data processing assistance.

Thanks are also due to Drs. Peter C. Smith, Robert Retherford, Sidney Goldstein, and Fred Arnold for their advice and comments on the paper. I am highly indebted to Dr. John Knodel for his review of an earlier draft. To Miss Orapen Buravisit, research assistant to the project, whose untiring help made the study possible, I owe my gratitude. Finally, my deepest appreciation is due to researchers at the East-West Population Institute and to Sandra Ward and Gregory Chu, also of EWPI, for their constructive comments and considerable editorial assistance.

ABSTRACT Comparison of data from the 1970 Population and Housing Census of Thailand with adjusted data from the 1960 Census reveals a slight increase in age at marriage for both sexes. Thai nuptiality appears to be in a transitional phase, moving toward a more modern pattern characterized by later marriage and a substantial proportion of the population remaining single. Cross-sectional analysis of the 1970 Census data indicates that the marriage pattern is responding to social changes associated with economic growth. Although marriage is still nearly universal in Thailand, delayed marriage is especially noticeable in Greater Bangkok and the relatively developed Central Region.

Using data from the 2 percent sample of the 1970 Census, the study correlates differentials in age at marriage and proportions single at younger and older ages with such socioeconomic and demographic characteristics as education, labor force participation, occupation, religion, citizenship (Thai or Chinese), household status, and migration status. As expected, delayed marriage and proportions single are found to be positively associated with educational attainment, female labor force participation, and occupational status. Age at marriage among women in 1970 was four to five years later for administrative, professional, and clerical workers than for agricultural workers, and women in these higher-status occupations tended more than others to remain single. Marriage occurred earlier and was more prevalent among Muslims than among Buddhists (the predominant religious group) and Christians. But the effect of religion on marriage interacted with the effect of education, especially at higher educational levels. Similarly, Chinese men and women married later than Thais; when citizenship and educational attainment were controlled, however, the effect of education outweighed that of citizenship among women (but not men). Internal migrants and specifically migrants to Greater Bangkok tended to have married earlier than nonmigrants, but factors other than migration alone may have been responsible for the difference.

The study found marriage dissolution through divorce, separation, and widowhood to be inversely related to fertility and also to urban residence, educational attainment, and occupational status. The number of children ever born and children under age five was lowest among divorced women and highest among women whose marriages were intact. The strong positive association between delayed marriage and socioeconomic status suggests that national policy aimed at improving *the status of women might be more effective in delaying marriage than legal measures to prohibit early marriage. Such a policy would be beneficial not only in encouraging fertility reduction but also in promoting marital stability.*

The problem of rapid population growth in Thailand, which has resulted from a sharp decline in mortality in recent decades, is a major concern of policy-makers and social scientists. The role of nuptiality in population growth is gaining the attention of demographers because delayed marriage has been one of the main responses to national economic development and a major cause of Thailand's recent fertility decline. The study of delayed marriage will provide not only insight into the process of fertility reduction, but also useful information for policy development in the areas of education, labor force, and family planning. Changes in nuptiality policy, such as raising the minimum legal age at marriage, would be premature without a better understanding of the association between socioeconomic development and nuptiality. This paper attempts to shed light on that association.

Davis and Blake (1956) have suggested that marriage is one of the social "intermediate variables" that intervene between natural and controlled fertility. In particular, nuptiality governs most of the "intercourse variables," including age at entry into sexual union and celibacy owing to divorce, separation, and widowhood.

Socioeconomic factors affecting marriage patterns have also become a focus of interest (Yaukey, 1973). A cross-sectional study by Dixon (1971) has revealed that the distinction made by Hajnal (1965) between the traditional marriage pattern (characterized by young and universal marriage) and the European marriage pattern (characterized by later marriage and a high level of celibacy) still holds, especially for female populations. Since World War II, however, there has been a pronounced trend toward earlier and more universal marriage in most Western countries and toward later marriage in many parts of the Middle East and Asia (Dixon, 1971:230). Smith (1976) has also discerned a recent trend toward delayed marriage in Asia.

The socioeconomic explanation for this narrowing gap is that in the West, especially in the most wealthy nations of the West where the economies have been most secure, former financial constraints on early marriage have vanished. But in some developing countries where early socioeconomic development is proceeding, constraints on marriage have begun to appear as a result of land shortages, underemployment in rural areas, and crowding and unemployment in cities. Moreover, early marriage among the highly educated is becoming less desirable "as they are freed from the contractualism of formerly arranged marriages without yet succumbing to the romanticism of the West" (Dixon, 1971:230).

Corresponding to these theoretical considerations, previous studies in Thailand have shown that mean age at marriage has tended to be highest in urban and nonagricultural areas, and especially in Greater Bangkok (Goldstein, 1971; Prachuabmoh et al., 1972; Knodel and Prachuabmoh, 1973). Recent analysis of the World Fertility Survey (WFS) data in Thailand reveals further that there has been a gradual rise in female age at marriage in the recent past (Institute of Population Studies and National Statistical Office, Thailand, 1977). Moreover, among currently married women, marriage age is closely related to education (Institute of Population Studies, 1971), rural or urban residence during childhood, family income, work status before first marriage, and occupation of husband (Institute of Population Studies and National Statistical Office, 1977).

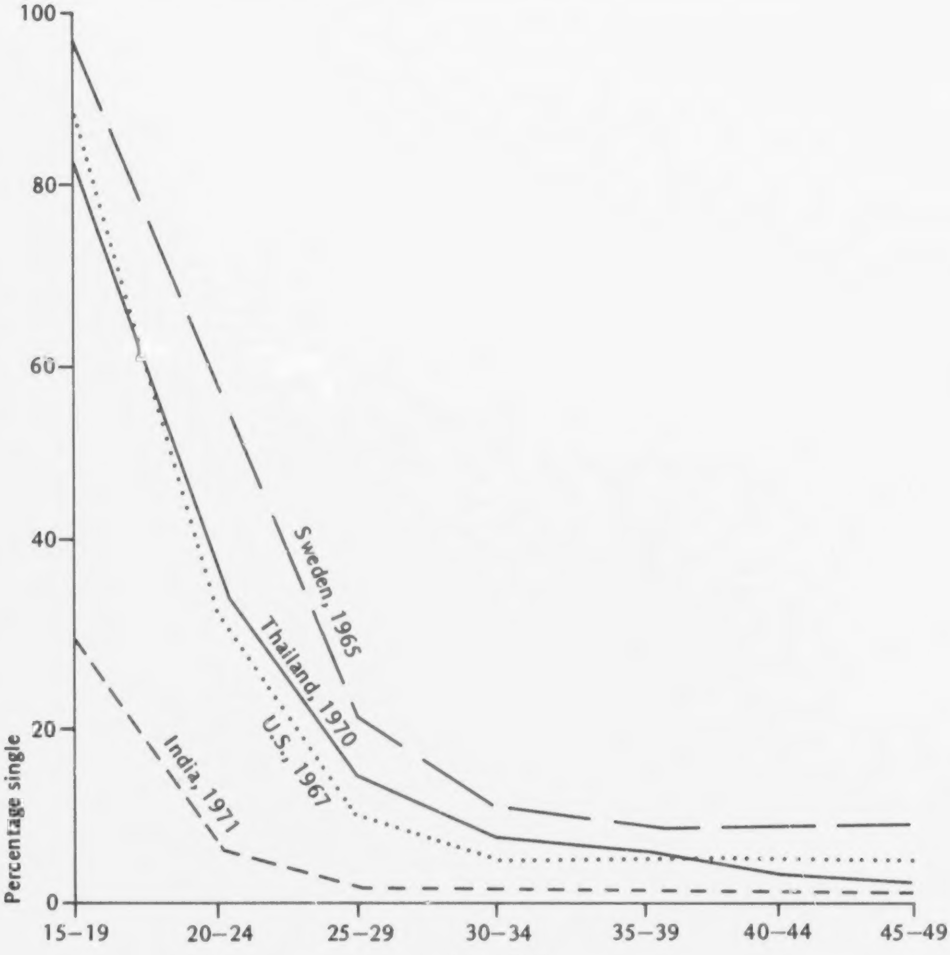
To supplement these findings, this paper presents an analysis of data from the 1970 Population and Housing Census of Thailand. The data include both the *changwad* (province) and regional series and the 2 percent sample of the Census. The former are studied by means of the cross-provincial approach, which is also used to examine level of development and the sex ratio at the aggregate level. Using the 2 percent sample data, I investigate socioeconomic differentials in nuptiality and fertility among ever married women of different current marital statuses.

THE THAI MARRIAGE PATTERN

1970 Census data on the percentage of women single by age reveal an unusual nuptiality pattern in Thailand. Compared with percentages single in two developed countries, Sweden and the United States, and in India (Figure 1), the Thai marriage pattern was more similar to that of the United States than to either the "traditional" pattern represented by India or the "European" pattern of Sweden. The percentage single was even higher in Thailand than in the United States for the ages around 21 to 36.

Another unusual feature of the Thai nuptiality pattern can be seen in the dynamic aspects of the nuptiality "transition" from early to later marriage (Figure 1). Although the percentages single at young

FIGURE 1 Percentage of women single by age: India, Sweden, Thailand, and the United States, recent years



Sources: United Nations Statistical Office (1976) and National Statistical Office (1973).

ages suggest a moderate age at marriage for Thai women, the small proportion single (2.2 percent) at ages 50 to 54 indicates that marriage has been virtually universal. This contrast between moderately delayed marriage among younger women and universality of marriage among older women may reflect a transitional phase of Thai nuptiality. If the marriage pattern has remained constant or changed only slightly in the last 35 years, the cross-sectional data can be interpreted to suggest that Thai women have responded to modernization by postponing marriage, but not by foregoing marriage. It is more likely, however, that these data indicate an actual moderate change in female marriage behavior over the 35 years preceding the 1970 Census. The percentages single at younger age groups may represent a more recent and modern type of nuptiality, whereas those at the older age groups represent the traditional pattern of the earlier period. This hypothesis needs to be tested by longitudinal comparisons. An investigation of nuptiality patterns, based on 1960 and 1970 Census data, may provide insight into the change in marriage behavior over time.

Data from 50 countries on men and women never married around 1970 are cited here to demonstrate the point that Thailand has had an intermediate nuptiality pattern at the younger ages (Table 1). The proportions of single men and women at ages 20–24 in Thailand in 1970 were about 64 and 38 percent respectively. The percentage of women

TABLE 1 Percentage of men and women never married at ages 20–24 and 40–44: 50 countries, around 1970

Region, country, and census year	Percentage never married			
	Ages 20–24		Ages 40–44	
	Males	Females	Males	Females
EAST ASIA				
Thailand				
1960	**68.2**	**38.6**	**3.0**	**3.1**
(1960)[a]	**(64.0)**	**(36.2)**	**(2.9)**	**(3.1)**
1970	**63.8**	**37.9**	**3.1**	**3.9**
Hong Kong, 1971	92.1	67.6	11.3	2.9
India, 1971	50.2	9.0	3.5	0.6
Japan, 1975	88.0	68.8	3.7	4.9
Republic of Korea, 1970	92.6	57.9	0.4	0.2
Malaysia, 1970	73.4	41.4	4.2	2.2
Pakistan, 1968	66.6	18.0	5.2	1.8
Philippines, 1970	69.2	50.2	4.8	7.3
Ryukyu Islands, 1970	84.3	69.2	4.6	3.5
Singapore, 1970	88.5	64.6	7.2	3.3
Unweighted mean[b]	69.1	42.5	4.7	2.8
MIDDLE EAST (9 countries[c])				
Unweighted mean	66.1	27.6	3.9	2.3

TABLE 1 *(continued)*

Region, country, and census year	Percentage never married			
	Ages 20–24		Ages 40–44	
	Males	Females	Males	Females
EASTERN EUROPE (7 countries[d])				
Unweighted mean	70.7	36.0	3.7	4.2
WESTERN EUROPE (20 countries[e])				
Unweighted mean	75.4	54.2	12.8	11.5
ENGLISH-SPEAKING COUNTRIES				
Australia, 1971	63.9	35.7	10.0	4.8
Canada, 1971	67.6	43.5	9.4	6.9
New Zealand, 1966	68.2	38.9	9.9	6.2
United States, 1970	55.5	36.3	7.5	5.4
ALL COUNTRIES				
Unweighted mean (M)	72.0	44.0	7.9	6.1

a For half of the population in each age group, age has been adjusted downward by six months from age reported to compensate for a tendency among some Thais to state age at next, rather than last, birthday.

b Excluding percentages for Thailand.

c Including Algeria (1966), Cyprus (1973), Iran (1971), Iraq (1970), Israel (1972), Jordan (1970), Morocco (1971), Tunisia (1971), and Turkey (1970).

d Including Bulgaria (1965), Czechoslovakia (1970), Greece (1971), Hungary (1970), Poland (1972), Romania (1966), and Yugoslavia (1971).

e Including Austria (1970), Belgium (1970), Denmark (1970), England and Wales (1970), Finland (1970), France (1970), Federal Republic of Germany (1970), Iceland (1969), Ireland (1971), Italy (1971), Luxembourg (1970), Malta (1967), Netherlands (1970), Northern Ireland (1966), Norway (1970), Portugal (1970), Scotland (1970), Spain (1970), Sweden (1970), and Switzerland (1970).

SOURCES: United Nations Statistical Office (1976), National Economic Development Board (1961), and National Statistical Office (1973).

single in this young age group was higher in Thailand than in India, Pakistan, Australia, or the United States, and also higher than the average for countries of the Middle East and Eastern Europe. On the other hand, the percentage of women single in the 20–24 age group was much higher in Hong Kong, Japan, the Ryukyu Islands, Singapore, and Western Europe than in Thailand. The percentage of men single at ages 20–24 was lower than in most of the other countries except India and the United States. Thai nuptiality at these younger ages, therefore, may be characterized as lying between the traditional and the European pattern, especially for women.

Thai data on proportions single at the older ages of 40–44, in contrast, indicate traditional nuptiality behavior, especially among men. In this age group, the percentage of men never married in 1970 was among the lowest of all the countries. For women the figure was lower than comparable proportions for the English-speaking countries, Eastern and Western Europe, Japan, and the Philippines, although it was higher than the proportions still single elsewhere in Asia and in the Middle East.

Of the two patterns of nuptiality—one characterized by universal nuptiality but delayed marriage at young ages (as in Japan and the Ryukyu Islands), the other characterized by a high rate of celibacy but young marriage (as in the United States)—Thailand's marriage pattern seems to resemble the former. Although there has been some delay in marriage at the young ages, especially among women, eventual marriage is nearly universal. That the Thai pattern does not conform exactly to either model may indicate, as I have already suggested, that Thailand is in a transitional phase of nuptiality behavior.

Table 2 presents recent data on singulate mean age at marriage in Asia for men and women. Singulate mean age at marriage (SMAM) is a summary measure of the timing of first marriage based upon one cross-sectional schedule of proportions single by age group. (For details, see Smith, 1978.) If one takes Asian nuptiality around 1970 as the standard, the SMAM for men in Thailand (24.7) may be considered below average. The highest SMAM for men was found in Hong Kong (30.2); the lowest, in Indonesia (23.6). As already noted, however, female age at marriage in Thailand in 1970 was intermediate, compared with that in other countries. Whereas the lowest age at marriage was reported for Bangladesh (14.8) and the highest for Macau (25.6), the SMAM for Thai women was 21.9.

CHANGES IN PROPORTIONS SINGLE

To test the hypothesis that Thailand is undergoing a transition toward a more modern nuptiality pattern, it is useful to compare the 1960 and 1970 Censuses of Thailand. But the two censuses are not entirely comparable in age reporting. In 1960, enumerators asked respondents to state their age. As reported by Chamratrithirong et al. (1978), there is substantial evidence of a tendency for Thais to state age at next birthday in preference to age at last birthday; and there is some evidence of a tendency to round age to that at the nearest birthday. Although the extent to which the practice of reporting age at next birthday occurs has not yet been determined, it appears to be fairly prevalent.

TABLE 2 Singulate mean age at marriage, by sex: countries of Asia, recent data

Region, country, and year	Male	Female	M − F
SOUTH ASIA			
Bangladesh, 1965	u	14.8	u
India, 1971	24.7	17.1	7.6
Nepal, 1971	u	16.6	u
Pakistan, 1971	u	19.2	u
Sri Lanka, 1971	28.0	24.1	3.9
SOUTHEAST ASIA			
Thailand, 1970	**24.7**	**21.9**	**2.8**
Brunei, 1960	25.7	19.5	6.2
Burma, 1953	u	19.3	u
Cambodia, 1962	24.3	21.3	3.0
Indonesia, 1971	23.6	19.0	4.6
Malaysia, 1970	25.6	22.1	3.5
Philippines, 1970	u	22.9	u
Singapore, 1970	u	24.4	u
EAST ASIA			
Hong Kong, 1971	30.2	23.8	6.4
Japan, 1970	27.6	24.7	2.9
Republic of Korea, 1970	27.2	23.3	3.9
Macau, 1970	29.0	25.6	3.4
Ryukyu Islands, 1965	27.9	25.5	2.4
Taiwan, 1974	24.7	23.1	1.6

u–unavailable.

SOURCE: Smith (1976: Appendix Table 1, 1978), except for Malaysia, where SMAMs were calculated from data on West Malaysia, Sabah, and Sarawak.

In the absence of more definitive evidence, adjustments of age data to allow for this tendency assume that in stating age directly, half of the respondents rounded age up to the next birthday and half reported age at last birthday. Persons who stated age directly (rather than by reporting date of birth) were, according to the assumption, reported as being on average about half a year older than if their age had been computed from the birth date. In the 1970 Census, on the other hand, age was calculated from the year of birth. It then referred to the age at last birthday. To solve the problem of incompatibility in age reporting, I have adjusted the 1960 percentages single by reducing the ages of half of the population in each age group by six months.

Table 3 and Figure 2 present percentages single by age and sex for 1960 (adjusted and unadjusted figures), 1970, and 1975. The unadjusted figures indicate that the percentages single were higher in 1960 than in 1970 among the younger age groups, but among older age groups the 1970 percentages were generally higher. Rather than reflecting a trend toward delayed marriage in the earlier decade, the unadjusted 1960 figures suggest a bias in age reporting among younger age groups, where marital statistics are most sensitive to age.

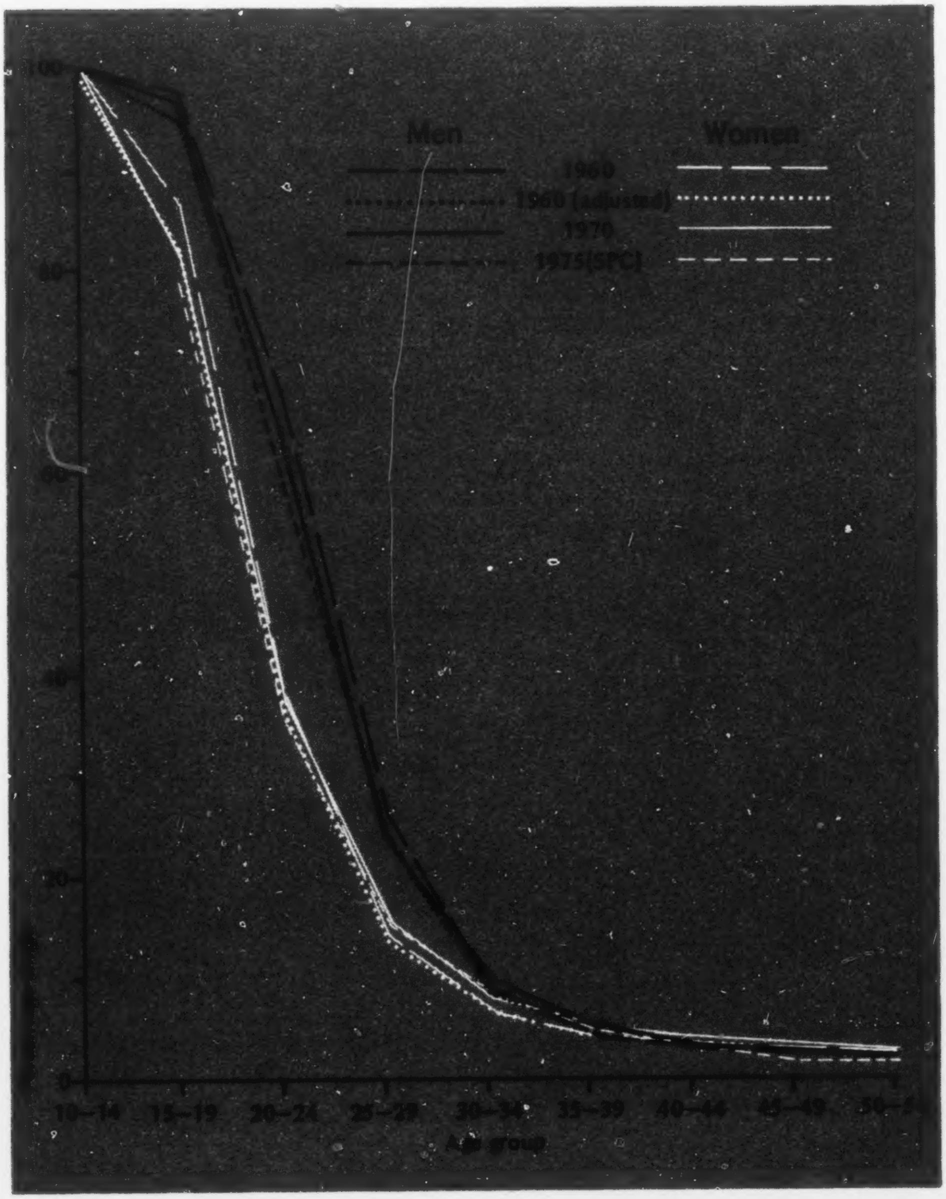
Looking first at the unadjusted data, we see that percentages single for ages 15–19 to 25–29 were lower in 1970 than in 1960 for both sexes except females aged 25–29. The gap is considerably greater for females aged 15–19 (86 percent in 1960 compared with 81 percent in 1970) and for males aged 20–24 (68 and 64 percent respectively) because the slope of decline in percentages single is especially sharp at these age groups for both females and males. At ages 30 and over, however, where the slope starts to level off and the bias in age reporting affects the likelihood of marriage only slightly, a reversed and probably more realistic trend in nuptiality is seen: the figures in 1970 were higher for every age group and for both sexes. The figures for the older age groups, which are not sensitive to age-reporting bias, suggest an actual increase in proportions single between the two census periods.

Correction of the bias almost totally eliminates the large difference between the two censuses at age groups 15–19 for females and 20–24 for males. Except for those two groups and for males aged 25–29, for which the percentages single were slightly higher in 1960, the figures reveal a uniform pattern of increasing delayed marriage during the period 1960–70.

Table 3 also presents data on percentages single in 1975 from the Survey of Population Change (SPC) and the WFS Survey of Fertility in Thailand (SOFT). Comparison of data from the 1970 Census and SOFT reveals, again, an increase in percentages single for almost all age groups of both sexes. This is especially true for younger women (ages 15–29). Comparison of data for the three years–1960 (adjusted figures), 1970, and 1975 (SOFT)–suggests that the increase in proportions of single young women accelerated in the latter period.

The SPC data provide contrasting evidence, however, suggesting that proportions single decreased in certain age groups, especially among younger women, in the five-year period. There is no conclusive explanation for the inconsistency between the two sets of survey data,

FIGURE 2 Percentage of men and women single by age: Thailand, 1960 (unadjusted and adjusted data), 1970, and 1975



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but I suspect that the migration of young men and women may have distorted the SPC data and that the trend toward later marriage indicated by the SOFT data is more realistic. Unpublished tables from the SPC (personal communication with Chintana Pejaranonda) show that in-, out-, and net out-migration during the survey period (1974–76) was substantial at ages 15–24 and that migrants were predominantly single. Therefore, there may have been an underenumeration of these young and single migrants in the SPC owing to the failure of the survey to account for all "temporarily away" residents. Yet, by definition, temporary visitors in the destination were excluded from the tabulations. Data from SOFT, on the other hand, are based on the de facto population (those who slept in the household the night before the interviews). Those who had moved away were statistically enumerated in the receiving areas. If my inference that the SOFT data, although based on a smaller sample,[1] are more likely to be representative of the younger population, the trend toward delayed marriage begun in the 1960s would appear to have continued, or even to have accelerated in the case of young women, in the 1970–75 period. The cross-sectional analysis that follows attempts to shed light on the socioeconomic and modernizing influences on nuptiality and, consequently, on the implications of the apparent trend toward later marriage in Thailand.

RURAL-URBAN AND REGIONAL VARIATION IN PROPORTIONS SINGLE

As shown in Table 4, only about 2 percent of the rural population and 4 percent of the urban population of both sexes had not married by ages 50–54 in 1970. Percentages currently single among all age groups, standardized by age on the basis of the population of the Whole Kingdom, confirms this pattern. The nuptiality pattern in the rural areas may therefore be characterized by so-called universal marriage. Although the percentage remaining single was slightly higher in urban areas, marriage there was still very nearly universal.

The data for the younger age groups reveal a lower age at marriage in rural than in urban areas, suggesting that urban-rural differentials were much greater in these age groups than at later ages. By ages 25–29, only 13 percent of the female population in rural areas were

---

[1] The SOFT sample size was much smaller than that of the SPC and is consequently subject to a higher sample variability (personal communication with Fred Arnold).

TABLE 4 Percentage single by age and sex: urban and rural areas of Thailand, 1970

Age group	Percentage single Urban areas Male	 Female	 Rural areas Male	 Female
10–14	100.0	99.7	100.0	99.5
15–19	98.1	89.2	95.8	79.5
20–24	80.8	59.2	60.4	33.7
25–29	43.8	30.8	20.4	12.8
30–34	20.2	16.3	8.1	6.7
35–39	10.3	10.1	4.4	4.5
40–44	6.1	7.1	2.7	3.4
45–49	4.8	5.5	2.0	2.7
50–54	3.9	4.2	1.6	2.3
Total standardized by age	58.0	51.9	50.2	42.8

were still single, compared with 31 percent in urban areas. Similar differences are found in the male population.

Even larger variations in female nuptiality patterns are observed between Greater Bangkok and the four regions of the country (Table 5). In 1970 the percentages single in Greater Bangkok were considerably higher than in the rest of the country for every age group, and the differences were greatest at younger ages. Not surprisingly, the Central Region, which is the most urbanized, had the slowest tempo of marriage compression and the highest total percentage single.

A comparison of singulate mean age at marriage in 1960 (adjusted figures) and 1970 reveals a slight increase for both sexes throughout the Whole Kingdom (Table 6). The increase was substantial, however, only in Greater Bangkok and especially for women, whose age at marriage increased by one and a half years. The SMAM rose slightly in the Central, North, and South Regions but declined slightly in the poor Northeast. In both 1960 and 1970, regional differences in the SMAMs for both sexes were apparent. Greater Bangkok had a higher age at marriage than any other part of the country. Among the four regions, the most developed Central Region had the highest SMAM. In 1970, for which rural-urban data are also available, the SMAMs were generally higher in urban than in rural areas (Table 7). As for differences between the sexes, male SMAMs were about three years higher than fe-

TABLE 5 Percentage of women single by age: Greater Bangkok and the four regions of Thailand, 1970

	Percentage single				
Age group	Greater Bangkok	Central[a]	Northeast	North	South
10–14	99.7	99.6	99.6	99.5	99.2
15–19	90.1	84.2	80.2	78.2	74.2
20–24	62.1	44.8	31.0	31.4	33.9
25–29	32.6	19.5	11.6	11.1	13.0
30–34	17.3	10.5	6.1	5.4	6.0
35–39	10.5	7.1	4.3	3.7	3.6
40–44	7.5	5.1	3.3	3.0	2.3
45–49	5.7	4.0	2.6	2.5	1.5
50–54	4.4	3.3	2.3	2.1	1.0
Total standardized by age	52.8	46.7	42.4	41.9	41.5

a Excluding Greater Bangkok.

male in all regions and in both rural and urban areas. In general, a region's socioeconomic development was positively associated with its SMAMs. This relationship between socioeconomic status and singulate mean age at marriage is examined below at the provincial level.

TABLE 6 Singulate mean age at marriage by sex: urban and rural areas and the four regions of Thailand, 1960 and 1970

	Male		Female	
Area or region	1960[a]	1970	1960[a]	1970
Whole Kingdom	24.5	24.7	21.6	21.9
Urban areas	u	27.2	u	24.7
Rural areas	u	24.2	u	21.4
Greater Bangkok	26.7	27.5	23.4	25.0
Central[b]	24.9	25.5	22.2	22.7
Northeast	23.9	23.7	21.5	21.2
North	23.9	24.2	21.0	21.1
South	24.5	24.7	21.0	21.3

u–unavailable.

a Adjusted for age misreporting.

b Excluding Greater Bangkok.

TABLE 7 Percentage never married and singulate mean age at first marriage, by sex, region, and urban/rural area: Thailand, 1970

Region and area	Percentage never married				Singulate mean age at first marriage		
	Male		Female				
	20–24	40–44	20–24	40–44	Male	Female	M – F
WHOLE KINGDOM	62.9	2.9	38.0	3.9	24.7	21.9	2.8
Urban	81.9	6.6	59.5	7.5	27.3	24.8	2.5
Rural	59.3	2.4	33.9	3.4	24.2	21.4	2.8
GREATER BANGKOK	83.7	7.2	64.5	8.3	27.6	25.4	2.2
Urban	85.1	7.1	64.9	14.1	27.8	25.9	1.9
Rural	76.9	7.7	62.8	7.4	26.8	24.8	2.0
CENTRAL[a]	68.4	3.0	44.9	5.0	25.2	22.4	2.8
Urban	75.2	7.0	52.6	7.9	26.5	23.8	2.7
Rural	67.6	2.5	44.0	4.7	25.1	22.2	2.9
NORTH	61.3	3.6	33.0	3.1	24.5	21.3	3.2
Urban	85.3	6.4	52.8	4.9	26.9	23.8	3.1
Rural	59.6	3.4	31.6	3.0	24.3	21.3	3.0
NORTHEAST	54.5	1.3	30.0	3.3	23.6	21.2	2.4
Urban	70.6	3.2	46.9	4.7	25.7	22.9	2.8
Rural	53.8	1.2	29.3	3.2	23.5	21.2	2.3
SOUTH	61.4	2.8	33.0	2.3	24.4	21.2	3.2
Urban	79.4	6.1	51.5	5.8	27.0	23.9	3.1
Rural	59.3	2.4	30.5	1.9	24.1	21.1	3.0

NOTE: In Thailand, localities are legally designated as urban or municipal on the basis of population size, density, revenue capabilities, and ability to perform certain governmental administrative functions (Goldstein et al., 1974).

[a] Excluding Greater Bangkok.

SOCIOECONOMIC CORRELATES OF AGE AT MARRIAGE

Correlation coefficients between the SMAM for the 69 *changwad* (provinces) in 1970 and an index of five socioeconomic (SES) variables are found to be high–.78 for men and .51 for women–and significant at the .001 level (Table 8). (See Chamratrithirong, 1976, for a discussion of the SES variables used.) These associations are also significant at the .001 level for all five of the SES variables, with the exception of

TABLE 3 Percentage single by age and sex: Thailand, 1960, 1960 adjusted, 1970, and 1975

	Percentage single									
	Male					Female				
Age group	1960	1960 (adjusted)[a]	1970	1975 (SPC)	1975 (SOFT)	1960	1960 (adjusted)[a]	1970	1975 (SPC)	1975 (SOFT)
10–14	99.8	99.6	100.0	u	u	99.9	98.5	99.5	u	u
15–19	97.4	94.5	96.2	95.6	96.9	86.2	81.5	81.0	78.6	84.7
20–24	68.2	64.0	63.8	59.6	63.9	38.7	36.2	37.9	35.9	41.4
25–29	25.8	24.1	24.0	24.5	25.9	14.1	13.4	15.6	15.7	19.2
30–34	8.9	8.5	9.9	8.9	8.1	6.7	6.5	8.1	8.2	10.1
35–39	4.6	4.4	5.2	5.2	5.9	4.2	4.1	5.3	4.8	6.3
40–44	3.0	2.9	3.1	3.3	2.8	3.1	3.1	3.9	3.2	3.8
45–49	2.4	2.3	2.3	2.2	2.4	2.6	2.6	3.0	1.6	3.3
50–54	2.1	2.1	1.9	2.1	1.8	2.3	2.3	2.5	1.6	3.8
Total	49.3	49.3	51.4	nc	nc	41.5	41.4	44.3	nc	nc

SPC–Survey of Population Change, 1974–76 (National Statistical Office, 1979).

SOFT–Survey of Fertility in Thailand (Institute of Population Studies and National Statistical Office, 1977).

u–unavailable.

nc–not calculable because of missing data for age group 10–14.

[a] Adjusted for age misreporting. (See footnote a, Table 1.)

TABLE 8 Pearson correlation coefficients between singulate mean age at marriage (SMAM) and socioeconomic characteristics: 69 provinces of Thailand, 1970

	SMAM	
Socioeconomic characteristics	Male	Female
Percentage urban[a]	.62*	.30†
Percentage in nonprimary industry[b]	.81*	.48*
Housing index[c]	.57*	.56*
Material possession scores[d]	.66*	.30†
Percentage with higher education[e]	.72*	.46*
SES index[f]	.78*	.51*

$*p < .001$.

$\dagger p < .01$.

[a] Percentage of provincial population residing in urban areas.

[b] Percentage of population employed in secondary and tertiary industries.

[c] Total T scores ($T = 50 + 10\frac{x-\bar{x}}{S.D.}$) on percentage of population living in private homes with strong construction, modern water source, electric lighting, modern toilet facilities, and modern cooking fuel.

[d] Average scores on possession of modern household materials.

[e] Percentage of population 21 years of age and over who attained grade 5 and over.

[f] Socioeconomic status index consisting of total T scores on the five socioeconomic variables.

percentage urban and average material possession scores, which do not correlate with female nuptiality at any level higher than .01.

The positive relationship found here between marriage delay and socioeconomic opportunities is consistent with various theoretical explanations. It lends weight to the relative deprivation thesis of Davis (1963), which emphasizes that a nuptiality delay is one of the demographic responses to increases in opportunities rather than to poverty. Using price theory, one can formulate another hypothesis to explain the positive relationship. Although increased income may facilitate early marriage, in the course of economic growth the "price" of marriage, which also increases with new opportunities, probably tends to outweigh the effect of increased income. This price effect involves, among other things, the termination of formal education and female employment in favor of earlier marriage. In other words, the relative socioeconomic constraints on marriage increase with development. These are reflected in rising aspirations for owning a residence and for higher educational and occupational achievement before marriage. On the whole, therefore, a positive relationship between nuptiality delay and increased opportunities is found here.

The socioeconomic correlation revealed by the Thai data is much more significant for men than for women (Table 8). This finding points to the importance of traditional sex roles in Thailand; the socioeconomic constraints, which increase in the course of modernization and development, are imposed more strongly on men. This is partly reflected in the Thai traditions such as the payment of *sin-sond* (money paid by the groom or his family at the time of marriage), *tong-mun* (money or gold given to the bride's family before the marriage), and the construction of *ruen-hor* (new house for the newlyweds built at the expense of the groom on the bride's land), whereas no specific prerequisites are traditionally imposed on women before marriage (Vanaputi, 1972). Furthermore, it is a Thai tradition that before marriage a man must spend a period of three months in the monkhood (Kaufman, 1960).

AVAILABILITY OF MATES

Among nonsocioeconomic factors that might influence regional marriage patterns, the sex ratio is of particular interest. Dixon (1971) has hypothesized that the nuptiality pattern can be predicted from three factors: availability of prospective mates, feasibility of marriage, and desirability of marriage. Availability is defined by several measures of the sex ratio at the marriageable ages. The masculinity ratio (ratio of marriageable men to marriageable women) represents the availability of husbands. According to Dixon's hypothesis, "masculinity ratios should be positively correlated with marital delays among men and with bachelorhood, and negatively correlated with marital delays among women and with spinsterhood" (p. 222).

Correlations between the masculinity ratio and the SMAM in 1970 for the 69 provinces of Thailand (Table 9) support Dixon's hypothesis. The masculinity ratio was negatively and significantly correlated with female SMAM, suggesting that female marriage behavior relied on the availability of male partners. As for men, the sex ratio was positively related to bachelorhood and male age at marriage, lending support to Dixon's hypothesis; but the strength of the relationship was not so significant.[2]

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[2] Defining the sex ratio as the ratio of males aged 20–24 to females aged 15–19, Smith (1980) has obtained correlations that are much weaker for each sex than those shown in Table 9 but with the same signs–i.e., .037 for males and -.054 for females.

TABLE 9 Pearson correlation coefficients between masculinity ratio and singulate mean age at marriage (SMAM), by socioeconomic status (SES) of provinces: 69 provinces of Thailand, 1970

Sex and provincial SES	SMAM 1970
MALE	
All provinces (N=69)	.26††
Low SES provinces (N=20)	.34
Medium SES provinces (N=21)	–.05
High SES provinces (N=21)	.33
Very high SES provinces (N=7)	–.13
Partial correlation coefficients (N=69)	.13
FEMALE	
All provinces (N=69)	–.39*
Low SES provinces (N=20)	–.74*
Medium SES provinces (N=21)	–.55†
High SES provinces (N=21)	–.61†
Very high SES provinces (N=7)	–.82††
Partial correlation coefficients (N=69)	–.61†

* $p < .001$.
† $p < .005$.
†† $p < .05$.

In order to separate socioeconomic factors from the availability of mates, which together underly the variation in nuptiality patterns, Table 9 shows partial correlation coefficients between the masculinity ratio and age at marriage, with SES controlled for the 69 provinces, and correlation coefficients for each of the four SES groups of provinces. Both statistical procedures confirm that for men, the weak relationship between the availability of mates and age at marriage virtually disappears when SES is controlled. For women, in contrast, the effect of the masculinity ratio remains strong and negative.

The finding that male age at marriage has not depended on the availability of mates, as in the case of women, may be due to differences in sex roles in traditional Thai society. Women are more passive in mate selection and therefore depend on male initiatives. Men, on the other hand, are probably more active in the marriage market, and therefore their nuptiality behavior does not depend on the sheer number of mates available. (See Knodel and Maynes, 1976, for a similar finding about nineteenth-century Germany.) On the other hand, as we have seen in Table 8, the marriage behavior of men has been much more closely related to socioeconomic factors than that of women. These two findings suggest that male marriage behavior is more complicated and influenced by socioeconomic factors, and that female nuptiality, because it is less influenced by socioeconomic considerations, depends more heavily on the availability of mates.

SOCIOECONOMIC AND DEMOGRAPHIC DIFFERENTIALS IN MARRIAGE

Socioeconomic and demographic variables likely to be associated with marriage include education and literacy, labor force participation and type of economic activity, occupation, major industrial group of employment, work status, religion, citizenship, relationship to household head, and migration status. This section examines the relationship between these variables and singulate mean age at marriage, proportion ever married at young ages, and celibacy at older ages, for both men and women.

The relationship of socioeconomic and demographic characteristics of men and women studied here to marital status should be interpreted with care. Although religion and citizenship, and probably education (especially at lower levels), probably do not change over life, other characteristics such as occupation, economic activity, work status, relationship to head of household, and migration status can change continually. The difficulty is that we do not know from available data whether changes in status occurred when the men and women studied were still single or after they had married. Imputation of a causal association between these characteristics and marital status should be made cautiously. Any explanation should leave room for the possibility that when men or women change their marital status, they may change their socioeconomic and demographic status for that reason; in other words, marriage may be a determinant rather than a consequence of socioeconomic status. Several interpretations of each investigated relationship are therefore offered here, where appropriate.

Education

A positive effect of educational attainment and literacy on age at marriate has been found in many countries. Smith (1976:46) has reported a difference of approximately five years between age at marriage among Asian women with no schooling and those who attained a high level of education. In the same study he indicated that the effect of education on age at marriage was greatest at the highest levels of attainment.

In Thailand in 1970, literate men and women had higher singulate mean ages at marriage than their illiterate counterparts (Table 10). Among women the difference was greater (22.1 compared with 20.0) than among men (24.7 compared with 24.3). The percentages never married at ages 20–24 for both sexes were also higher for the literate than for the illiterate groups.

Marriage age by educational attainment followed the same pattern. The singulate mean age at marriage and percentages never married at ages 20–24 rose substantially beyond the primary educational level for both men and women. Among men, age at marriage rose from 24.5 and 24.3 for those with no schooling and primary education respectively to 26.7 for those with secondary education and 29.5 for those who had graduated from a university. Among women, age at marriage rose from 20.2 to 21.7, 25.4, and 29.2 respectively across the four educational groups. Slightly fewer than one-third of female university graduates remained single at ages 40–44.

The difference of nine years in marriage age between women with no formal education and those who had a university degree is especially striking when compared with the average difference for Asia of five years. In contrast, the corresponding difference for Thai men was only five years. The gap between men and women in age at marriage was greater (4.3 years) for the group with no schooling than that (0.3 years) for university graduates. These findings suggest that educational attainment has affected female nuptiality more strongly than male (see Figure 3). Female celibacy, especially among university graduates, appears to be an important factor underlying the difference between male and female marriage patterns. It is also noteworthy that in Thailand, as in many other countries, the effect of education on age at marriage seems to be greatest beyond the primary level, which was the compulsory level at the time when this cohort of women was in school.

Labor force participation and type of economic activity

Changes in the nature of labor force participation, especially those related to nonfarm activity, are another aspect of social and economic development that is frequently found to be responsible for changes in demographic behavior. It is often assumed that, in modernizing societies, increased female participation in the labor force may lead to a

TABLE 10 Percentage never married and singulate mean age at first marriage, by sex and selected socioeconomic, cultural, and demographic characteristics: Thailand, 1970

Characteristics	Percentage never married				Singulate mean age at first marriage		
	Male		Female				
	20–24	40–44	20–24	40–44	Male	Female	M−F
EDUCATIONAL ATTAINMENT							
No schooling	55.9	5.4	27.2	3.9	24.5	20.2	4.3
Primary	60.0	2.2	35.3	3.5	24.3	21.7	2.6
Secondary	80.0	5.4	70.0	11.1	26.7	25.4	1.3
University	97.6	3.6	95.0	31.7	29.5	29.2	0.3
LITERACY							
Literate	63.4	2.5	39.4	4.0	24.7	22.1	2.6
Illiterate	54.5	6.0	25.4	3.8	24.3	20.0	4.3
ECONOMIC ACTIVITY							
Economically active	70.8	3.2	59.8	6.6	25.7	24.3	1.4
Employed	70.7	3.7	63.3	7.6	25.8	24.9	0.9
Looking for work	71.7	2.9	71.4	21.6	29.0	28.7	0.3
Experienced worker	46.1	0.0	25.3	33.2	23.8	19.1	4.7
New worker	81.3	9.5	83.1	8.1	30.4	30.7	-0.3
Waiting for farm season	70.9	1.7	52.3	4.7	25.2	23.2	2.0
Economically inactive	96.0	29.0	34.5	3.0	32.8	21.0	11.8
Housewife/homemaker	85.5	13.4	20.5	2.4	29.1	19.1	10.0
Student	94.0	0.0	99.5	0.0	u	u	u
Unable to work	100.0	29.2	(89.9)[a]	6.7	33.7	29.8	3.9
Other	83.4	21.4	77.6	35.0	31.4	31.3	0.1
OCCUPATION							
Professional, technical, and related workers	74.1	2.8	76.4	17.5	26.6	25.7	0.9
Administrative, executive, managerial workers, and government officials	86.0	2.8	73.1	27.3	27.1	26.4	0.7
Clerical and related workers	76.0	7.0	82.5	18.5	27.2	26.6	0.6
Sales workers	74.5	3.4	53.9	5.2	26.2	23.6	2.6
Agricultural workers	57.0	2.0	33.5	3.2	23.9	21.5	2.4

TABLE 10 *(continued)*

	Percentage never married				Singulate mean age at first marriage		
	Male		Female				
Characteristics	20–24	40–44	20–24	40–44	Male	Female	M−F
OCCUPATION *(continued)*							
Miners and quarry workers	89.5	4.5	72.0	1.7	u	u	u
Transport workers	57.9	3.7	78.5	11.6	23.9	23.7	0.2
Artisans and laborers	67.7	5.7	61.9	9.1	25.4	25.0	0.4
Service workers	74.7	3.3	72.8	7.0	25.7	26.6	-0.9
MAJOR INDUSTRIAL GROUP							
Agriculture, forestry, hunting, and fishing	57.0	2.0	33.5	3.2	23.9	21.5	2.4
Mining and quarrying	74.7	7.8	29.6	1.8	25.4	na	na
Manufacturing	72.4	6.3	69.6	10.3	26.1	26.0	0.1
Construction, repair, and demolition	66.4	4.0	41.0	1.9	24.9	u	u
Electricity, water, and sanitary services	67.0	6.9	56.6	11.8	26.5	u	u
Commerce	75.4	4.1	57.3	5.7	26.5	24.0	2.5
Transport, storage, and communication	61.9	4.2	69.3	9.9	24.3	23.4	0.9
Services	76.3	3.2	71.7	11.2	26.1	26.1	0.1
WORK STATUS							
Employer	43.9	1.3	(44.7)[a]	6.1	24.0	u	u
Own-account worker	28.1	0.7	52.5	8.6	20.9	22.4	-1.5
Government employee	76.2	4.1	75.0	14.9	26.1	24.2	1.9
Private employee	70.6	7.5	69.0	8.0	26.0	25.7	0.3
Unpaid family worker	80.0	25.8	54.9	4.7	25.8	23.8	2.0
RELIGION							
Buddhism	63.4	2.9	38.4	4.0	24.7	22.0	2.7
Islam	52.2	1.8	25.9	0.8	23.3	19.6	3.7
Christianity	60.6	2.6	50.8	12.9	24.9	21.7	3.2
EDUCATIONAL ATTAINMENT BY RELIGION							
No schooling							
Buddhism	60.6	5.9	29.2	4.2	25.1	20.6	4.5
Islam	37.6	2.0	7.5	0.3	21.9	17.0	4.9
Christianity	45.9	1.0	31.3	5.9	23.6	18.7	4.9

TABLE 10 *(continued)*

	Percentage never married				Singulate mean age at first marriage		
	Male		Female				
Characteristics	20–24	40–44	20–24	40–44	Male	Female	M−F
Primary							
Buddhism	60.6	2.2	35.3	3.5	24.3	21.7	2.6
Islam	55.1	1.3	32.6	1.8	23.6	20.0	3.6
Christianity	53.5	2.1	46.4	8.7	24.0	21.7	2.3
Secondary							
Buddhism	79.3	5.4	69.6	11.3	26.7	25.7	1.0
Islam	88.0	7.3	65.6	5.9	26.6	u	u
Christianity	82.0	3.1	80.5	5.0	u	17.6	u
University							
Buddhism	97.8	3.5	95.4	28.9	29.6	30.0	-0.4
Islam	(93.9)[a]	u	(76.1)[a]	8.6	u	u	u
Christianity	(83.7)[a]	8.5	(84.1)[a]	62.9	26.6	21.6	5.0
Secondary and university							
Buddhism	81.2	5.0	74.1	15.0	27.1	26.5	0.6
Islam	88.5	6.3	66.6	7.0	27.0	28.7	-1.7
Christianity	82.1	5.9	81.3	34.4	27.5	20.1	7.4
CITIZENSHIP							
Thai	62.8	2.9	38.0	4.0	24.6	21.9	2.7
Chinese	79.2	3.3	77.6	1.2	26.2	24.9	1.3
EDUCATIONAL ATTAINMENT BY CITIZENSHIP							
No schooling and primary							
Thai	59.9	2.7	34.3	3.7	24.3	21.5	2.8
Chinese	77.5	3.2	(77.2)[a]	1.3	26.0	24.7	1.3
Secondary and university							
Thai	81.4	5.1	74.1	16.2	27.1	26.0	1.1
Chinese	(93.4)[a]	4.2	(79.8)[a]	u	28.6	25.8	2.8
RELATIONSHIP TO HEAD OF HOUSEHOLD							
Urban areas							
Head	38.0	2.1	67.2	11.1	21.7	26.7	-5.0
Son/daughter	90.1	31.3	85.5	46.2	28.7	28.9	-0.2
Relative and other	90.4	36.3	81.2	31.6	30.0	31.0	-1.0
Servant	89.1	48.3	91.3	26.5	30.8	31.6	-0.8

TABLE 10 *(continued)*

	Percentage never married				Singulate mean age at first marriage		
	Male		Female				
Characteristics	20–24	40–44	20–24	40–44	Male	Female	M – F
RELATIONSHIP TO HEAD OF HOUSEHOLD *(continued)*							
Rural areas							
Head	9.3	0.6	39.9	4.9	17.2	21.9	-4.7
Son/daughter	87.6	40.0	61.1	32.3	30.5	21.3	9.2
Relative and other	81.5	35.5	63.2	33.0	28.9	28.1	0.8
Servant	95.3	(0.0)[a]	84.0	(0.0)[a]	33.0	29.1	3.9
MIGRATION STATUS							
Lifetime migration							
Internal migrant	66.9	2.9	35.9	3.1	25.0	21.5	3.5
Internal nonmigrant	61.9	2.9	38.4	4.1	24.6	22.5	2.1
Migrant to Greater Bangkok	82.3	5.0	57.0	7.1	27.1	24.5	2.6
Born in Greater Bangkok	84.9	9.8	70.4	9.6	28.0	26.0	2.0
Five-year migration							
Internal migrant	53.5	3.7	26.6	3.2	23.7	20.2	3.5
Internal nonmigrant	65.4	2.8	40.2	4.0	24.9	22.2	2.7
Migrant to Greater Bangkok	82.2	7.9	54.1	7.5	27.0	24.3	2.7
Greater Bangkok resident	84.5	7.1	68.4	8.5	27.8	25.8	2.0

u–unavailable.

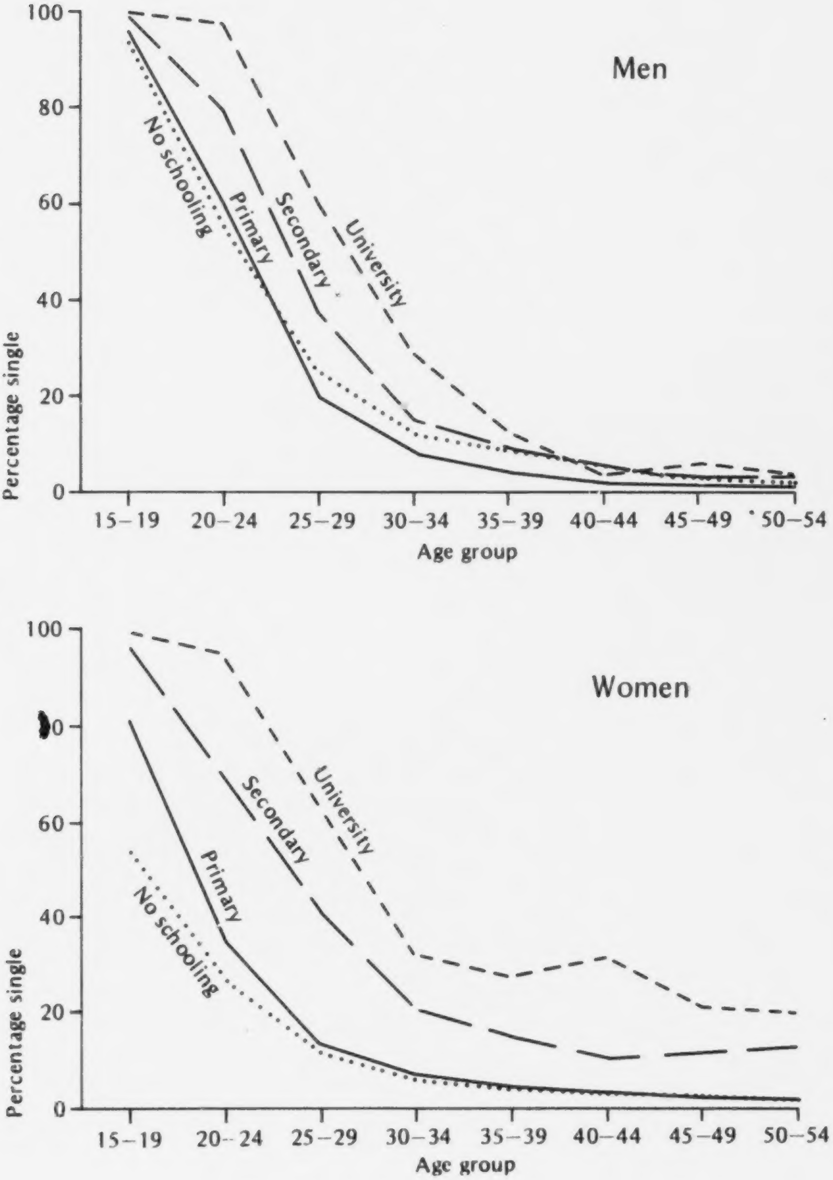
na–not applicable because women were not employed in these industries.

a Base population less than 500.

delay in marriage. As already noted, however, causality may run in the opposite direction, and women who do not marry early may enter or remain in the labor force. The findings presented here are therefore subject to more than one interpretation.

Table 10 reveals that age at first marriage was higher in 1970 for economically active Thai women than for women who did not participate in the labor force. The difference in singulate mean age at marriage was 3.3 years (24.3 and 21.0 respectively). However, it is noteworthy that for men the opposite was true and the difference was very pronounced (seven years). The proportion of women never married at

FIGURE 3 Percentage of men and women single by age, for four educational levels: Thailand, 1970



ages 20–24 was considerably higher among the economically active (60 percent) than among the economically inactive (35 percent). The relationship between labor force participation and delayed marriage is therefore confirmed for young women in Thailand. For men, again, the opposite was true, probably because the small minority of men who could not work despite social pressures to do so may have faced financial and physical constraints that led to marriage delay.

The 1970 Census also collected data on employment status and reasons for not working. Under the economically active category are three subgroups: the employed, those looking for work (consisting of experienced workers and new workers), and those waiting for the farm season. Among these three groups, those waiting for the farm season were characterized by the earliest mean ages at marriage (Table 10). Women engaged in farm activities, and especially those who had not taken a secondary job but were waiting for the farm season, had married relatively early.

Among the economically active, those looking for work were characterized by the highest proportion never married at ages 20–24. The data reveal further that new workers aged 20–24 looking for work had delayed marriage to the greatest extent. Experienced workers looking for work, on the other hand, had the lowest proportion never married among economically active men and women in that age group.

The substantial difference in marriage patterns between new and experienced workers looking for work may be associated with occupational level and other characteristics of the two groups. For example, persons looking for jobs for the first time (new workers) at ages 20–24 may have been in the higher educational and occupational groups whose work required specialized training and whose entrance into the labor force was consequently delayed. Experienced workers who were looking for work at ages 20–24 may have included persons who had moved to a new place and had to change jobs. Many of the moves could have been associated with marriage; the proportion never married was very low for these groups of men and women. Because these interrelations are rather speculative, detailed analysis of marriage patterns by occupation and migration status is pursued in succeeding sections.

As expected, among the economically inactive, students and persons (especially males) unable to work were least likely to be married. At ages 20–24, 94 and 99.5 percent respectively of male and female students were still single. Among those unable to work the percentages never married at ages 20–24 were as high as 100 for men and 90 for women. The proportion never married at ages 40–44 was also relatively high (29 percent) for men unable to work. The singulate mean age at marriage for men and women unable to work was also high (33.7 and 29.8 respectively). These findings suggest that the effect of physical and mental disability in delaying marriage is substantial in Thailand. But more research on this topic is needed.

Housewives and female homemakers[3] had the lowest age at marriage (19.1) of the economically inactive group. The proportion of these women remaining single at ages 20–24 was also the lowest (20.5 percent), as one might expect. In contrast, for male homemakers age at marriage (29.1) and proportion still single at ages 20–24 (85.5 percent) were fairly high. This difference probably reflects the segregation of sex roles in Thai society. Young adult males are expected to have jobs before they marry, whereas young women are not necessarily expected to hold jobs.

Occupation, major industrial group, and work status

Occupation is another important variable in theoretical considerations as well as empirical investigations of the timing and prevalence of marriage. Employment in higher occupational strata, which usually requires prolonged training, may delay marriage. More importantly, occupation reflects social and economic status, which is closely associated with nuptiality behavior. Furthermore, certain occupations, although not regarded as conferring high status, may delay marriage because the type of work they entail makes early family building difficult.

Table 10 presents marriage data by occupation, major industrial group, and work status. In the occupational category, female agricultural workers and male agricultural and transport workers had the lowest SMAMs (21.5 and 23.9 respectively). Men in the clerical, administrative, and professional groups had the highest ages at marriage, around 27. Age at marriage for male workers in sales, service, and crafts were intermediate. For women, marriage age was highest among service workers and clerks (nearly 27). Women in administrative and professional occupations also married relatively late, around age 26. Women in crafts and labor, transport, and sales married at intermediate ages.

Thus average female age at marriage was about four to five years higher for administrative, professional, and clerical workers than for agricultural workers, greater than the comparable differential in men's ages. The gap between male and female SMAMs was less than one year for occupational groups other than agriculture and sales.

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[3] Most female homemakers are, by definition, housewives. Others are family members who are still single and help around the house but are not counted as economically active persons.

In general, the proportions still single at ages 20–24 reveal a similar pattern of occupational differentials. Young women engaged in agricultural work were characterized by the lowest percentage never married (33.5) and young women in clerical occupations, the highest (82.5). Women whose jobs were related to transport had the second highest percentage never married (78.5), a finding that may reflect the nature of such work, which might discourage early family formulation for women. For men, in contrast, employment in transport did not appear to impede marriage. But nearly 90 percent of the 38,776 men who worked as miners and quarry workers in 1970 were still single at ages 20–24.

With regard to celibacy, which is roughly measured by percentages never married at ages 40–44, it is worth noting that women in the administrative, professional, and clerical occupations remained single in substantial proportions. For instance, 27 percent of women classified as administrative, executive, and managerial workers and government officials had never married. This finding is open to several interpretations. It may reflect a wide range of socioeconomic effects on nuptiality for high-status women. It probably is related to changes in sex roles and greater economic independence of such women owing in part to the stability and the prestige of their occupations. The unavailability of appropriate mates for this group of women may also be a contributing factor. Another possibility is that women who do not find mates early in their careers tend to seek higher-status jobs. Clarification of causality in this association requires more research.

The 1970 Census also provided information on marriage patterns of major industrial groups. Differences in SMAMs and proportions single were similar to those found in the comparison of occupational groups. Age at marriage was lowest for the primary sector, which includes agriculture, forestry, hunting, and fishing. Marriage ages for the secondary and tertiary sectors[4] were high, ranging from 23.4 for women in transport and related industries to 26.1 for those in services. For men, the highest age at marriage (26.5) occurred among those involved in electricity, water, and sanitary services and in commerce.

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[4] The secondary sector includes manufacturing, construction, repair, and demolition. The tertiary sector includes electricity, water, and sanitary services; commerce, transport, and storage; communication; and services.

Substantially larger proportions of women in services and transport-related industries remained single at ages 20–24 than in other industries. This probably points to a role conflict on the part of the women between marriage and work in the service and transport industries.

Classification of the labor force by work status reveals that self-employed (own-account) workers had a substantially lower average age at marriage among men (20.9) and a somewhat lower SMAM among women (22.4) than the categories of employer, government employee, private employee, and unpaid family worker. Government and private employees reported the highest ages at marriage (about 26 for men and 24–26 for women). Government employees aged 40–44 had the highest level of female celibacy (15 percent), nearly twice that of private employees, whereas unpaid family workers had the highest level of male celibacy (26 percent) in that age group. In general, work status may be closely related to occupation. Own-account workers tend to be employed in the agricultural sector or as small-scale vendors. Their traditional pattern of early and nearly universal marriage is therefore not surprising.

Religion

Because religion is an important social institution that is closely related to other traditions and customs, investigation of its association with the timing and prevalence of marriage, in a country where more than one religion is practiced, is of interest. In Thailand, Buddhism is the religion of 95.3 percent of the population. The census is an ideal source of information on religious orientation, for it contains a large enough number of minority cases to make comparison possible.

Interest in the influence of religion on nuptiality in Asia has led to both cross-national comparisons and studies of subgroups within specific countries (Smith, 1976). One important conclusion from these studies is that "religious differences cannot be readily dismissed as merely the reflection of differences in socioeconomic composition" (Smith, 1976:29).

Data from the 1970 Thai Census reveal certain nuptiality differences among the three major religions of Buddhism, Islam, and Christianity (the last of which includes Roman Catholicism and Protestantism). Among Moslems marriage occurred earlier and was more prevalent than among either Buddhists or Christians, whose nuptiality patterns were more or less similar (Table 10). Buddhists and Christians married on the average at ages 22 for women and 25 for men; Moslems, at about one and a half to two years earlier (20 for women and 23 for men).

The prevalence of marriage among Moslems can be seen in the proportions never married at ages 20–24, which were lowest in that religious group. Furthermore, marriage was almost universal for Moslem women, less than 1 percent of whom remained single at ages 40–44. Celibacy was fairly prevalent (nearly 13 percent) among Christian women but not so among Christian men or the other two religious groups. In general the association between religion and nuptiality seems to have been stronger for women than for men. This conclusion can be drawn from both the celibacy patterns and proportions single at younger ages. Marriage patterns differed across religions for women to a greater extent than for men.

Following the suggestion by Smith (1976) that the effect of religious orientation on marriage should be investigated independently of other socioeconomic influences, I have controlled the census data on religion for educational level. The results suggest that the effect of religion on nuptiality has operated, to some degree, independently of educational level, for at each educational level there were religious differentials in marriage behavior.

In general, age at marriage for Buddhists and Moslems increased substantially beyond the secondary level of education. The increase was especially pronounced for Moslem women, whose singulate mean age at marriage rose from 17 for those with no formal schooling to nearly 29 for those with secondary and university education combined. For Moslem men, SMAM also rose substantially with education, from 22 for those with no schooling to 27 for those in the secondary and university groups.

Among Christian women, however, SMAM remained in the range of 19 to 22 for different educational levels. For them religious orientation appears to have been an important influence on marriage almost regardless of educational level. But among Christian men SMAM rose moderately with education.

At the university level, celibacy among Buddhist and especially among Christian women was very high (29 and 63 percent respectively). The phenomenally high proportion of educated Christian women remaining single was probably related to other characteristics of Christians in Thailand. One of these is that Christians in Thailand are a minority. There were only 2,511 Christian women aged 15–55 in 1970 who had received university education. Consequently, if marriage between Christians and non-Christians is limited, a likely assumption, the high degree of celibacy among such women may have been the result of a severely restricted marriage market. In fact, there were only 2,279 Christian men aged 15–55 with university education in 1970. Furthermore, a sizeable portion of the Christian women with university education were nuns who had taken an oath of celibacy.

Overall, the influence of religion on nuptiality seems to remain substantial. Yet its effect interacts with educational level. For low educational levels (no schooling and primary education), the Moslem pattern of nuptiality seems to be the most "traditional"–that is, age at marriage was lowest of all religious groups for both men and women, and the difference between male and female marriage ages was relatively high. For the higher educational levels (beyond primary education), religion seems to have had little effect on male age at marriage, which was about the same among the three religious groups. For women, on the other hand, SMAM among Christians was substantially lower than in the other two religions. This study, therefore, is able to show that the relationship between religious orientation and nuptiality in Thailand has not been negligible; but certain interactions of religion and education, as well as differences by sex, need to be considered in evaluating the nature of that relationship.

Citizenship

As of 1970, approximately 311,093 people holding Chinese citizenship resided in Thailand, accounting for 0.9 percent of the total population. (This figure does not include people of Chinese ancestry, who represented a much greater number. The 1970 Census focused only on current citizenship.) In urban areas, where the majority of Chinese citizens live, they constituted 4.3 percent of the population. Although the number of actual Chinese citizens is not great, persons of Chinese descent and Thai-Chinese mixtures form the major minority ethnic group in Thailand. Investivation of Thai-Chinese marriage patterns is therefore relevant to this study. Previous studies have shown that citizenship (Chinese and Thai) is one of the significant factors underlying marriage patterns in Thailand, in particular age at marriage, the mate selection process, and postnuptial residence (Limanonda, 1976).

Tabulation of proportions single by age and by citizenship can be obtained from the 1970 Census sample tape. The association between ethnicity and marriage behavior can therefore be investigated here. As shown in Table 10, both male and female Chinese married, on the average, at older ages than Thais. For men, SMAM was 24.6 for Thais and 26.2 for Chinese; corresponding figures for women were 21.9 and 24.9 respectively.

In order to confirm the effect of citizenship upon marriage age, I have controlled the correlations between citizenship and nuptiality for educational attainment. Table 10 reveals that the influence of citizenship on marriage pattern interacted with educational level for women with limited education but not for men. For men age at marriage was higher among Chinese than among Thais at all educational levels. That Chinese men married later than Thais appears therefore to be related directly to ethnicity per se and probably is not a reflection of socioeconomic differences between the two ethnic groups. For women, the effect of citizenship was limited to those who attained at most a primary education; in that group SMAM was 21.5 for Thais and 24.7 for Chinese. Those who completed more than primary education, regardless of citizenship, married later, at 26.0 for Thais and 25.8 for Chinese. The effect of higher education on female marriage behavior therefore seems to have outweighed the difference in cultural background. In other words, for women, ethnicity and culture were associated in their influence on marriage behavior only when women had little education and probably were not yet going through the modernization process.

Relationship to household head

Marriage is the stage in life that is most closely related to change in household status. Postnuptial residence is one of the focal areas of interest concerning the Thai marriage pattern (Knodel and Prachuabmoh, 1973; Limanonda, 1976). The 1970 Census provides classification of marriage pattern by relationship to household head, son and daughter, relatives and others, and servants. Investigation of this tabulation may increase understanding of the association among marriage, stage of the life cycle, and consequent household status.

As for the proportion of men and women single at ages 20–24 and 40–44, those who retained the status of son or daughter of the household head remained single to a greater extent than the national average. In rural areas, for instance, the proportions of women who were single at ages 20–24 and 40–44 were 61 and 32 percent respectively for those classified as daughters (Table 10), as compared with only 34 and 3 percent respectively among all rural women (Table 4). Higher percentages single for women classified as daughters were also found in urban areas. The pattern for sons was similar. This finding reflects the selectivity of married persons who left the parents' home to settle in new households.

Table 10 shows further that a greater proportion of people classified as relatives and other persons residing in the household was single at the two age groups than the national average. This suggests that married relatives were more likely than single individuals to leave the household, and also that, in the context of the extended family in Thailand, single individuals rather than married couples tended to coreside with the household head. This pattern emerged for both urban and rural places.

Data on servants indicate strongly that domestic servants, both males and females, tended to be single persons. The singulate mean age at marriage for this group was fairly high, ranging from 29.1 for women to 33.0 for men in rural areas. Delayed marriage among servants is historically common in other cultures. For example, quantitative evidence from nineteenth century Germany has indicated a similar pattern (Knodel and Maynes, 1976).

In Thailand, as in other developing countries and some of the developed nations in the past, many single young men and women in rural areas move to towns to work as servants. As a result, their age at marriage is typically higher than it would otherwise be. Although high proportions single among servants may be partly explained by the selectivity of those who marry and consequently give up working as servants, it is also possible that the nature of servants' work has something to do with celibacy or the delay of marriage. Knowing that domestic servants are inclined to quit their jobs when they marry, household heads tend not to encourage their marriage. Servants may also have difficulties in the mate selection process owing to limited opportunities for meeting potential partners, and they may have to postpone marriage because of their financial and residential constraints.

Migration status

Migration is related to marriage in a number of aspects. Men or women may move to marry and live with spouses who reside in another location. The move may be initiated soon after marriage when a couple is able to build a home or when they have children. On one hand, migration may free men and women from traditional constraints and facilitate mate selection. On the other, migration may disrupt a way of life and make marriage more difficult. Furthermore, migration associated with social mobility may result in late marriage because migrants may spend more time than nonmigrants attaining socioeconomic and occupational status before marriage.

Table 10 presents differentials in nuptiality by migration status for lifetime and five-year migrants and for migrants within Thailand and those to Greater Bangkok. It indicates that, except among male lifetime migrants, age at marriage was lower for migrants than for nonmigrants. This pattern is generally consistent whether one considers lifetime or recent migration and overall migration or rural-urban movement. The finding suggests that migration itself is associated with earlier family formation. Support for the social mobility thesis (described in preceding paragraph) is not evident here. For migration to Greater Bangkok, the differential in marriage age may be due to differences in rural-urban origin as well as to migrant or nonmigrant status. Although the causal link between migration and nuptiality cannot be identified for the time being, it is worth reemphasizing that the differential itself is consistent. Further analysis of this correlation is needed.

SOCIOECONOMIC AND DEMOGRAPHIC DIFFERENTIALS IN MARRIAGE DISSOLUTION

Various additional indexes of nuptiality have been calculated from the 1970 Census marital status information. The indexes include the proportion married (I_m), proportion single (I_s), proportion divorced (I_d), proportion separated (I_p), and proportion widowed (I_w). (See Coale, 1970, Hull and Saladi, 1977, and Smith, 1978, for calculation of these indexes.) These indexes indicate "distributions of women of reproductive age of various status [that] are weighted according to a Hutterite schedule of age specific fertility which is meant to represent an approximate weighting for potential fecundity patterns" (Hull and Saladi, 1977:3). In other words, these indexes reflect not only the marriage pattern of women but also the potential effect of their marital status on fertility. For instance, the proportion divorced will be inflated in the index I_d if divorced women are predominantly young (and presumably fecund).

This section emphasizes marriage dissolution and its potential effect on fertility. I will discuss the relation of I_d, I_p, and I_w to different socioeconomic groups, religions, citizenship, and selected demographic characteristics.

In 1970 approximately 65 percent ($I_m = 0.646$) of the reproductive potential of Thailand's population was realized through the existing marriage pattern, if (as I assume) illigitimacy was negligible (Table 11). About 30 percent ($I_s = 0.302$) of potential fertility was unrealized because of women of reproductive age who were still single. The remaining 5 percent of unrealized reproductive potential was due to marriage dissolution from divorce, separation, and widowhood. Among the three forms of marital dissolution, divorce and separation together had a greater effect on fertility than widowhood. The proportion of marital dissolution was lower in urban than in rural areas.

TABLE 11 Marital status indexes for Thai women, by region and by urban and rural areas: 1970

Region and area	Proportion married I_m	Proportion single I_s	Proportion divorced I_d	Proportion separated I_p	Proportion widowed I_w
WHOLE KINGDOM	0.646	0.302	0.011	0.020	0.021
Urban	0.523	0.452	0.009	0.001	0.015
Rural	0.669	0.278	0.011	0.019	0.022
GREATER BANGKOK	0.486	0.471	0.007	0.023	0.013
Urban	0.477	0.482	0.006	0.021	0.014
Rural	0.526	0.419	0.011	0.034	0.009
CENTRAL[a]	0.631	0.324	0.003	0.023	0.019
Urban	0.561	0.396	0.006	0.024	0.012
Rural	0.638	0.317	0.002	0.023	0.019
NORTH	0.669	0.278	0.012	0.017	0.023
Urban	0.553	0.394	0.015	0.019	0.018
Rural	0.677	0.270	0.012	0.017	0.024
NORTHEAST	0.671	0.270	0.018	0.018	0.022
Urban	0.569	0.373	0.023	0.019	0.017
Rural	0.675	0.266	0.018	0.018	0.023
SOUTH	0.699	0.251	0.007	0.019	0.025
Urban	0.566	0.385	0.010	0.019	0.020
Rural	0.716	0.233	0.007	0.019	0.025

[a] Excluding Greater Bangkok.

Lower educational and occupational groups were characterized by more marital disruption than other groups (Table 12). This was true for all three types of marriage dissolution. Socioeconomic differences in the proportion of women widowed could probably be partly explained by differences in mortality associated with socioeconomic status (see Knodel and Chamratrithirong, 1978). But lower proportions divorced and separated among the higher socioeconomic groups of women may have several explanations. First, women of higher socioeconomic status may have tended to conceal their marriage dissolution by reporting their marital status as being single or still married. Second, because age at marriage was lower among women of lower socioeco-

TABLE 12 Marital status indexes for Thai women, by selected socioeconomic, cultural, and demographic characteristics: 1970

Characteristic	Proportion married I_m	Proportion single I_s	Proportion divorced I_d	Proportion separated I_p	Proportion widowed I_w
EDUCATIONAL ATTAINMENT					
No schooling	0.770	0.148	0.016	0.021	0.044
Primary	0.646	0.305	0.011	0.020	0.018
Secondary	0.317	0.661	0.004	0.013	0.004
University	0.291	0.689	0.002	0.014	0.004
LITERACY					
Literate	0.622	0.332	0.010	0.019	0.017
Illiterate	0.775	0.142	0.017	0.021	0.044
ECONOMIC ACTIVITY					
Economically active	0.545	0.401	0.005	0.028	0.021
Employed	0.505	0.430	0.006	0.033	0.025
Looking for work	0.269	0.680	0.008	0.015	0.028
Experienced worker	0.523	0.341	0.005	0.032	0.099
New worker	0.206	0.764	0.008	0.011	0.011
Waiting for farm season	0.626	0.337	0.003	0.020	0.014
Economically inactive	0.678	0.295	0.003	0.018	0.007
Housewife/homemaker	0.814	0.156	0.002	0.020	0.008
Student	0.003	0.997	0.000	0.000	0.000
Unable to work	0.245	0.539	0.078	0.075	0.063
Other	0.207	0.740	0.007	0.045	0.001
OCCUPATION					
Professional, technical, and related workers	0.444	0.526	0.005	0.018	0.007
Administrative, executive, managerial workers, and government officials	0.482	0.473	0.006	0.016	0.023
Clerical and related workers	0.335	0.639	0.005	0.014	0.007
Sales workers	0.603	0.314	0.013	0.035	0.035

TABLE 12 *(continued)*

Characteristic	Proportion married l_m	Proportion single l_s	Proportion divorced l_d	Proportion separated l_p	Proportion widowed l_w
Agricultural workers	0.670	0.276	0.012	0.018	0.023
Miners and quarry workers	0.661	0.266	0.000	0.042	0.032
Transport workers	0.679	0.303	0.003	0.005	0.010
Artisans and laborers	0.448	0.476	0.012	0.037	0.026
Service workers	0.358	0.559	0.022	0.036	0.025
MAJOR INDUSTRY GROUP					
Agriculture, forestry, hunting, and fishing	0.622	0.257	0.011	0.017	0.021
Mining and quarrying	0.695	0.226	0.014	0.045	0.020
Manufacturing	0.408	0.530	0.010	0.029	0.024
Construction, repair, and demolition	0.544	0.371	0.014	0.049	0.021
Electricity, water, and sanitary services	0.552	0.426	0.006	0.012	0.005
Commerce	0.586	0.334	0.012	0.034	0.034
Transport, storage, and communication	0.594	0.367	0.006	0.017	0.015
Services	0.358	0.571	0.016	0.034	0.022
WORK STATUS					
Employer	0.508	0.238	0.013	0.072	0.169
Own-account worker	0.599	0.214	0.015	0.071	0.101
Government employee	0.491	0.480	0.003	0.019	0.007
Private employee	0.406	0.510	0.008	0.053	0.023
Unpaid family worker	0.597	0.382	0.002	0.013	0.006
RELIGION					
Buddhism	0.654	0.313	0.011	0.001	0.021
Islam	0.739	0.196	0.013	0.023	0.028
Christianity	0.585	0.372	0.010	0.008	0.025
EDUCATIONAL ATTAINMENT BY RELIGION					
No schooling					
Buddhism	0.762	0.155	0.015	0.023	0.045
Islam	0.856	0.065	0.019	0.019	0.041
Christianity	0.766	0.179	0.011	0.004	0.040

TABLE 12 *(continued)*

Characteristic	Proportion married l_m	Proportion single l_s	Proportion divorced l_d	Proportion separated l_p	Proportion widowed l_w
EDUCATIONAL ATTAINMENT BY RELIGION *(continued)*					
Primary					
Buddhism	0.646	0.306	0.011	0.020	0.017
Islam	0.650	0.298	0.008	0.027	0.016
Christianity	0.595	0.355	0.011	0.012	0.027
Secondary					
Buddhism	0.317	0.661	0.004	0.013	0.004
Islam	0.317	0.654	0.004	0.022	0.003
Christianity	0.309	0.681	0.002	0.004	0.004
University					
Buddhism	0.283	0.696	0.002	0.015	0.004
Islam	0.334	0.666	0.000	0.000	0.000
Christianity	0.447	0.539	0.000	0.008	0.006
Secondary and university					
Buddhism	0.312	0.666	0.004	0.014	0.004
Islam	0.319	0.655	0.003	0.021	0.002
Christianity	0.342	0.647	0.001	0.005	0.004
CITIZENSHIP					
Thai	0.645	0.303	0.011	0.020	0.021
Chinese	0.752	0.148	0.006	0.036	0.058
EDUCATIONAL ATTAINMENT BY CITIZENSHIP					
No schooling					
Thai	0.771	0.147	0.016	0.022	0.044
Chinese	0.836	0.055	0.005	0.023	0.081
Primary					
Thai	0.646	0.306	0.011	0.020	0.018
Chinese	0.599	0.317	0.009	0.061	0.014
Secondary					
Thai	0.315	0.663	0.004	0.013	0.004
Chinese	0.511	0.444	0.000	0.034	0.012
University					
Thai	0.282	0.697	0.002	0.014	0.004
Chinese	0.366	0.334	0.000	0.301	0.000

TABLE 12 *(continued)*

Characteristic	Proportion married l_m	Proportion single l_s	Proportion divorced l_d	Proportion separated l_p	Proportion widowed l_w
Secondary and university					
Thai	0.311	0.668	0.004	0.014	0.004
Chinese	0.500	0.436	0.000	0.053	0.011
RELATIONSHIP TO HEAD OF HOUSEHOLD					
Head	0.190	0.189	0.075	0.196	0.351
Daughter	0.319	0.622	0.018	0.026	0.015
Relative and other	0.211	0.698	0.021	0.034	0.036
Servant	0.063	0.849	0.020	0.048	0.020
MIGRATION STATUS					
Lifetime migration					
Internal migrant	0.694	0.259	0.009	0.019	0.019
Internal nonmigrant	0.638	0.310	0.011	0.020	0.021
Migrant to Greater Bangkok	0.551	0.403	0.007	0.025	0.015
Greater Bangkok resident	0.434	0.525	0.007	0.021	0.011
Five-year migration					
Internal migrant	0.709	0.247	0.010	0.017	0.016
Internal nonmigrant	0.637	0.310	0.011	0.020	0.022
Migrant to Greater Bangkok	0.485	0.473	0.006	0.025	0.011
Greater Bangkok resident	0.486	0.471	0.007	0.023	0.013

nomic status, such women were exposed to a longer period of risk of divorce and separation. Third, there is a possibility that women of higher socioeconomic status may tend to remarry more than their lower socioeconomic counterparts. Fourth, marriage stability may be related to financial stability. Finally, the traditional pattern of early marriage and probably quasi-arranged marriage among the lower social and economic classes may lead to less stable marriages than the modern pattern of later marriage, in which mate selection is probably more carefully processed by both spouses and their parents. Unfortunately, verification of these hypotheses is not possible without additional data.

Besides the comparison of marital indexes by socioeconomic variables, census data permit differentiation by religion. In general, Moslem women seemed to experience the greatest incidence of separation and divorce, although differences between them and Buddhist and Christian women were not great (Table 12). For those with no education, Moslem and Buddhist women were similar to each other in the extent of separation and divorce combined. For those at primary and secondary educational levels, however, Moslem women had a greater incidence of separation than Buddhist and Christian women. Yet at the university level there was no evidence of Moslem marriage dissolution at all. In general Christian women were less likely to be separated or divorced than the two other religious groups.

As for citizenship, the census data reveal that separation was more common among Chinese, but divorce was more common among Thais. Whereas separation declined with higher educational levels for Thais, the opposite was true for Chinese; for them, the proportion separated rose from 2 percent among those with no formal schooling to 30 percent among those with university education. Divorce was almost negligible for Thais at the higher educational levels, and virtually disappeared for Chinese educated beyond primary level. At the university level, however, separation increased sharply among Chinese. Possibly there was a tendency for more highly educated Chinese to choose separation rather than divorce, or perhaps they tended to describe their divorced status as separation.

The census data reveal differences in marriage behavior for various household statuses of women. Only 9 percent of households were headed by women. Most of these women were widows ($I_w = 0.351$); the proportions separated or divorced were also high ($I_p = 0.196$ and $I_d = 0.075$). The proportion of female household heads who were currently married or single was much lower than the national average for women of all household statuses (Table 11). In sum, the fertility potential of female heads of household was reduced by more than half through divorce, separation, or death of husbands.

Women who were daughters of household heads remained predominantly single. The proportion of such single women was far above the national average ($I_s = 0.622$). Marriage dissolution by separation and divorce among daughters of household heads was slightly higher than the figures for all Thai women (shown in Table 11). This finding may reflect their return to the parents' home after marital dissolution. As expected from the data presented in Table 10, the marriage pattern of relatives and other persons residing in the household was anomalous. Almost 70 percent of such women were single, and the proportion whose marriages had ended in divorce, separation, or widowhood was higher than the national average. The nuptiality pattern of servants was least typical of the national pattern. About 85 percent were single, and the proportion married was very low. The incidence of separation in this group was higher than the national average, nearly 5 percent compared with 2 percent.

Female migrants may have a higher proportion of broken families than female nonmigrants. Goldstein et al. (1973), investigating temporary separation, speculated that the high proportion of women without a spouse present in Greater Bangkok may have been the result of migration. The current analysis is concerned with the association between migration status and marriage patterns including permanent dissolution. The 1970 Census data reveal no substantial difference in the extent of marriage dissolution between female migrants and female nonmigrants. This finding pertains to both lifetime and five-year migration and to migration throughout Thailand as well as migration to Greater Bangkok. In contrast, data on males (shown in Table 13) reveal that in most age groups separation was more prevalent among five-year migrants than among nonmigrants.

In general, separation and migration appear to be closely related among Thai males. A man who migrates without his wife may end up separated. Conversely, separation may lead to migration away from the wife. The association between separation and migration may be exaggerated, however, by the tendency of Thai men to use the word "separation" to describe their status of living apart from their wives when they migrate. It is noteworthy that separation and migration are closely associated only for men and not for women, suggesting a pattern of husbands leaving wives rather than vice versa. Data on divorce, in contrast, do not show any consistent association with migration, for either men or women.

THE RELATIONSHIP OF MARITAL STABILITY TO FERTILITY

Nuptiality patterns are known to be important in affecting fertility. Not only are the timing and tempo of first marriage among the significant intermediate variables determining the time span of the reproductive process, but so also are the extent of broken marriages from widowhood, divorce, and separation (Davis and Blake, 1956). Goldstein et al. (1973), in their analysis of a 1 percent sample from the

TABLE 13 Percentage of men widowed, divorced, and separated, by five-year migration status and age: internal migration and migration to Greater Bangkok, 1970

Migration status and age	Widowed	Divorced	Separated
INTERNAL MIGRATION			
Migrants			
15–19	0.05	0.01	0.01
20–24	0.17	0.06	0.53
25–29	0.31	0.37	1.26
30–34	0.23	0.51	2.07
35–39	1.27	0.81	2.78
40–44	1.79	1.24	2.30
45–49	2.92	1.06	4.09
50–54	6.21	0.75	3.66
Total	0.74	0.40	1.42
Nonmigrants			
15–19	0.02	0.06	0.05
20–24	0.20	0.27	0.46
25–29	0.63	0.56	0.63
30–34	0.60	0.48	0.60
35–39	1.29	0.40	0.73
40–44	1.65	0.50	0.89
45–49	2.93	0.30	0.88
50–54	4.73	0.36	0.36
Total	1.05	0.33	0.57
MIGRATION TO GREATER BANGKOK			
Migrants			
15–19	0.00	0.00	0.00
20–24	0.00	0.04	0.21
25–29	0.04	0.08	1.46
30–34	0.12	0.23	4.22
35–39	0.64	0.55	2.57
40–44	1.02	0.29	1.60
45–49	0.90	0.22	2.92
50–54	2.22	0.49	3.95
Total	0.21	0.13	1.27

TABLE 13 *(continued)*

Migration status and age	Widowed	Divorced	Separated
Nonmigrants			
15–19	0.01	0.01	0.04
20–24	0.02	0.02	0.21
25–29	0.37	0.60	1.34
30–34	0.50	0.34	1.12
35–39	0.67	0.31	1.49
40–44	0.67	0.45	1.77
45–49	1.20	0.75	1.67
50–54	2.92	0.63	2.42
Total	0.52	0.30	0.98

1960 Census of Thailand, found that the cumulative fertility of married women with spouse present far exceeded that of women whose marriages had been disrupted by divorce or temporary absence of spouse. Similar findings were reported by Knodel and Prachuabmoh (1973:28) from the Longitudinal Study of Social, Economic, and Demographic Change in Thailand. Currently married women were found to have the highest cumulative fertility; divorced and separated women, the lowest; and widows, intermediate fertility. Fertility differentials by marital status were found to be more pronounced in rural areas, a finding probably related to rural-urban differentials in the adoption of contraception. According to Knodel and Prachuabmoh (1973:28), "differences in the length of exposure to the risk of childbearing beyond the point where the desired family size is achieved may be less consequential for the cumulative fertility of urban women" than for their rural counterparts.

An attempt is made here to examine the effects of marital status on cumulative and current fertility of ever married women in Thailand. Tables 14 and 15 present number of children ever born alive (cumulative fertility) and own children in the age group 0–4 in 1970 (current fertility[5]) per 1,000 ever married women by age and marital status. For the children-ever-born data, fertility was found to differ markedly by marital status. The fertility of currently married women

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[5] The number of women's own children aged 0–4 is called the "current" fertility of those women because it refers to the number of surviving children who were born during the five years preceding the census.

TABLE 14 Number of children ever born alive (cumulative fertility) per 1,000 ever married women, by women's age and current marital status: 1970

	Children ever born per 1,000 women				
Age group	Ever married	Currently married	Widowed	Divorced	Separated
15–19	731.3	731.3	700.0	832.5	677.5
20–24	1,842.5	1,875.7	1,441.9	1,380.1	1,350.4
25–29	3,093.1	3,146.7	2,660.6	1,730.9	2,207.5
30–34	4,389.8	4,479.5	3,532.9	2,371.8	2,913.5
35–39	5,628.0	5,780.2	4,434.8	2,759.3	3,609.1
40–44	6,447.6	6,659.2	5,291.8	3,388.0	4,470.9
45–49	6,587.0	6,843.5	5,797.9	3,253.9	4,781.1
Total	4,287.5	4,343.2	4,706.2	2,199.0	2,904.4
Total standardized[a]	4,243.8	4,357.4	3,498.6	2,299.2	2,925.9

[a] Standardization is based on the following numbers of ever married women per age group (in thousands): 15–19, 355.4; 20–24, 841.5; 25–29, 965.9; 30–34, 993.4; 35–39, 909.5; 40–44, 735.2; 45–49, 578.8; and all age groups, 5,379.7.

TABLE 15 Number of own children aged 0–4 (current fertility) per 1,000 ever married women, by women's age and current marital status: 1970

	Own children aged 0–4 per 1,000 women				
Age group	Ever married	Currently married	Widowed	Divorced	Separated
15–19	594.7	958.6	465.1	621.9	502.9
20–24	1,260.3	1,286.0	936.4	868.0	892.8
25–29	1,453.3	1,494.9	872.7	673.5	859.6
30–34	1,280.5	1,329.9	652.3	416.6	571.2
35–39	1,060.7	1,120.1	461.4	245.0	411.4
40–44	692.5	754.3	276.4	100.7	252.3
45–49	230.7	266.6	69.1	79.8	84.6
Total	1,032.8	1,090.4	355.8	476.1	548.3
Total standardized[a]	1,032.6	1,075.8	577.6	438.5	545.8

[a] See footnote a, Table 14, for basis of standardization.

of reproductive age (15–49) was much higher than that of women whose marriages were disrupted by widowhood, divorce, or separation. This pattern is similar for all age groups. The age-standardized figures show that women who were currently married had borne an average of 4.4 children, whereas widowed, divorced, and separated women had borne an average of 3.5, 2.3, and 2.9 children respectively.[6] At the end of the reproductive period, women whose marriages were currently stable had an average completed family size of 6.8 children, as compared with 5.8, 3.3, and 4.8 children respectively for the three groups of women whose marriages were broken.

The effect of marital status on both cumulative and current fertility appears to have been quite substantial here. To ascertain whether the fertility differences were due to marital instability and not to other socioeconomic factors, it is necessary to control fertility for the possible effects of such factors. Table 16 shows cumulative and current fertility controlled for the educational attainment of women. At every educational level, cumulative and current fertility was higher among women who were currently married than among women who were widowed, divorced, or separated. This was true for all age groups, as shown in Tables 17 and 18. Among women whose marriages were disrupted, cumulative fertility was highest for widows and lowest for the divorced, at all educational levels (Table 16) and for most of all age groups (Table 17). The explanation for this general pattern is probably related to the amount of time women were exposed to the risk of childbearing. There is no consistent pattern, however, in the current fertility (i.e., fertility within the past five years) of women with disrupted marriages when one takes educational attainment into consideration. Current fertility was therefore not totally influenced by the length of exposure to childbearing risk.

For both cumulative and current fertility, the differentials by marital status were more pronounced among women with lower education. This finding may be related to one from the study of Knodel and Prachuabmoh (1973), who reported a more pronounced differentiation in rural than in the urban areas. Their speculation concerning differences in contraceptive practice among rural and urban women is

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[6] The total unstandardized figures show higher fertility among widows than among currently married. This finding is due to a great majority of widows being in the older age groups; their cumulative fertility was higher than that of currently married women simply because of their longer exposure to childbearing. Interpretation of the figures for all age groups should therefore be made after age standardization.

TABLE 16 Number of children ever born alive (cumulative fertility) and own children aged 0–4 (current fertility), per 1,000 ever married women aged 15–49, by educational attainment, standardized age, and current marital status

Type of fertility and educational attainment	Number of children per 1,000 women				
	Ever married	Currently married	Widowed	Divorced	Separated
CHILDREN EVER BORN					
All educational levels[a]	4,243.8	4,357.4	3,498.6	2,299.2	2,925.9
No schooling	4,436.1	4,571.3	3,499.9	2,475.1	3,252.0
Primary	4,249.8	4,356.5	3,538.7	2,201.3	2,822.5
Secondary and university	2,873.1	2,815.4	2,505.7	1,835.4	2,108.9
OWN CHILDREN AGED 0–4					
All educational levels[a]	1,032.6	1,075.8	577.6	438.5	545.8
No schooling	1,007.6	1,057.6	470.7	449.7	584.1
Primary	1,060.0	1,101.9	621.5	432.1	552.1
Secondary and university	694.7	717.0	414.8	265.0	443.7

NOTE: See footnote a, Table 14, for basis of age standardization.

[a] Women whose educational level is unknown are included in the calculation.

probably applicable to the current finding regarding educational differences.

Regardless of marital status, both cumulative and current fertility were markedly lower among women who had attained secondary and higher levels of education than among those with lower educational attainment (Table 16).[7] Both education and marital disruption, therefore, appear to have had a substantial negative influence on fertility. The interaction between them, however, is not investigated here.

Overall, the results from the current analysis support previous findings, discussed at the beginning of the paper. They help to confirm the hypothesis that marriage dissolution affects fertility in Thailand to a large extent. In the section on SES and demographic differentials in marital dissolution I showed that socioeconomic characteristics were strongly related to the degree of marital stability. Marriage

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[7] Analysis of socioeconomic differentials (including education) in fertility from a 2 percent sample of the 1970 Population and Housing Census of Thailand is presented in Chamratrithirong and Boonpratuang (1978).

TABLE 17 Number of children ever born alive (cumulative fertility) per 1,000 ever married women, by women's educational attainment, age, and current marital status: 1970

Educational attainment and age group	Children ever born per 1,000 women				
	Ever married	Currently married	Widowed	Divorced	Separated
NO SCHOOLING					
15–19	939.4	955.9	551.0	799.9	761.9
20–24	2,128.3	2,189.7	1,361.7	1,423.5	1,655.6
25–29	3,409.5	3,473.2	2,947.8	1,517.6	2,612.8
30–34	4,626.7	4,714.6	3,636.5	3,103.0	3,193.3
35–39	5,713.2	5,918.2	4,167.2	2,453.9	3,715.3
40–44	6,547.2	6,771.5	5,300.6	4,191.2	5,340.7
45–49	6,636.6	6,929.3	5,770.2	3,409.2	4,888.7
Total	5,217.9	5,316.5	5,056.2	2,718.7	3,925.1
Total standardized[a]	4,436.1	4,571.3	3,499.9	2,475.1	3,252.0
PRIMARY					
15–19	694.9	692.4	745.2	834.9	669.5
20–24	1,821.8	1,851.9	1,452.5	1,392.2	1,323.4
25–29	3,091.5	3,146.9	2,579.8	1,791.6	2,168.1
30–34	4,382.4	4,475.3	3,519.9	2,098.6	2,901.5
35–39	5,666.7	5,804.7	4,602.6	2,891.6	3,612.1
40–44	6,477.1	6,685.5	5,341.6	2,954.7	3,961.8
45–49	6,612.1	6,828.3	5,957.4	3,035.2	4,592.4
Total	4,026.1	4,084.7	4,461.2	2,002.7	2,612.1
Total standardized[a]	4,249.8	4,356.5	3,538.7	2,201.3	2,822.5
SECONDARY AND UNIVERSITY					
15–19	710.8	717.8	2,464.3	1,217.4	227.0
20–24	1,409.2	1,440.8	1,976.5	1,068.1	937.2
25–29	1,973.0	1,985.8	2,054.1	1,404.4	1,693.2
30–34	3,406.4	2,768.3	1,831.3	2,098.7	1,776.2
35–39	3,344.2	3,420.1	2,696.8	2,333.3	2,401.3
40–44	4,122.2	4,279.8	3,512.9	2,123.2	3,066.1
45–49	4,589.3	4,756.4	3,631.7	2,450.2	4,557.0
Total	2,525.5	2,551.4	3,038.8	1,797.1	1,909.9
Total standardized[a]	2,873.1	2,815.4	2,505.7	1,835.4	2,108.9

[a] See footnote a, Table 14, for basis of standardization.

TABLE 18 Number of own children aged 0–4 (current fertility) per 1,000 ever married women, by women's educational attainment, age, and current marital status: 1970

Educational attainment and age group	Own children aged 0–4 per 1,000 women				
	Ever married	Currently married	Widowed	Divorced	Separated
NO SCHOOLING					
15–19	706.9	726.0	347.3	474.9	581.6
20–24	1,260.0	1,302.2	508.0	797.9	1,069.0
25–29	1,378.4	1,425.1	836.9	535.7	820.9
30–34	1,256.3	1,298.5	603.4	617.4	761.4
35–39	1,034.0	1,113.1	351.6	323.2	300.7
40–44	636.4	699.8	292.6	130.8	246.3
45–49	209.6	245.7	66.7	100.5	55.5
Total	837.0	912.9	236.5	392.4	411.7
Total standardized[a]	1,007.6	1,057.6	470.7	449.7	584.1
PRIMARY					
15–19	577.4	579.4	520.9	655.5	491.4
20–24	1,272.8	1,295.8	1,059.5	900.5	880.4
25–29	1,492.6	1,534.9	889.5	721.1	876.8
30–34	1,302.4	1,354.3	678.4	347.1	546.0
35–39	1,090.0	1,143.7	530.6	224.4	448.2
40–44	745.7	805.8	281.7	83.9	262.6
45–49	261.3	295.9	75.6	46.1	112.1
Total	1,112.6	1,161.5	463.7	517.1	595.9
Total standardized[a]	1,060.0	1,101.9	621.5	432.1	552.1
SECONDARY AND UNIVERSITY					
15–19	501.0	513.6	392.9	478.3	227.0
20–24	1,014.0	1,043.3	1,129.4	599.6	609.0
25–29	1,101.8	1,121.6	593.1	357.7	733.3
30–34	939.9	968.1	478.8	218.0	540.7
35–39	493.1	508.8	33.4	85.0	473.8
40–44	228.8	251.8	52.1	77.5	128.2
45–49	158.2	179.6	41.8	94.4	39.7
Total	813.2	847.6	187.8	276.9	502.9
Total standardized[a]	694.7	717.0	414.8	265.0	443.7

[a] See footnote a, Table 14, for basis of standardization.

dissolution among lower-status women was probably crucial in reducing their fertility. Marriage disruption among higher-status women, on the other hand, may have had less effect on their fertility because their reproductive behavior was influenced to a greater degree by socioeconomic development and family planning practice. To gain a fuller understanding of the process of fertility decline during the course of modernization in Thailand, it will be necessary to investigate not only the role of marriage and marital dissolution, but also the extent of remarriage and the interrelation between marriage and contraceptive practice.

SUMMARY AND CONCLUSION

In 1970 nuptiality patterns in Thailand lay between the "traditional" (i.e., young age at marriage and universal marriage) and the "modern" or "European" type characterized by marriage postponement and a relatively high proportion of celibacy. Singulate mean ages at marriage (SMAMs) of 25 for males and 22 for females, revealed by the 1970 Census, are considered "intermediate." Only 2 to 3 percent of the population remained single at age 50, indicating a nearly universal marriage pattern. Comparison of the proportions of men and women single at younger ages in 1960 and 1970 has shown a slight increase in age at marriage for both sexes. Delayed marriage was especially noticeable in Greater Bangkok and the Central Region. Data from the 1975 Survey of Fertility in Thailand (SOFT) indicate an increase in percentages single for both men and women, and point to an accelerated increase in the proportion of young single women during 1970–75. But the 1975 Survey of Population Change produced opposite results. The analysis here, which tends to support SOFT data, suggests that Thai nuptiality is in transition toward a more modern marriage pattern, particularly in the more developed areas of the country.

Cross-sectional analysis of 1970 Census data suggests that socioeconomic change affected nuptiality in Thailand during the last decade. Age at marriage varied greatly across the rural-urban areas and the four regions of Thailand. Greater Bangkok had the highest ages at marriage. In a cross-provincial analysis of the relationship between nuptiality and socioeconomic characteristics, age at marriage and percentage single were positively related, especially for men.

Availability of mates was also found to affect nuptiality patterns, particularly for women. The masculinity ratio was negatively and significantly correlated with spinsterhood and female age at marriage. This relationship still held when socioeconomic status was controlled.

For males, however, the relationship was weak and virtually disappeared when SES was controlled. These findings point to differential sex roles in traditional Thai society. Women are more passive in mate selection and depend on male initiatives. In contrast, the marriage behavior of men was found to be much more closely related to socioeconomic factors and not to depend strongly on the sheer number of mates available.

With data from the 2 percent sample of the 1970 Census, this study was able to consider socioeconomic and demographic differentials in marriage patterns. The association of education, labor force participation, and occupation with delay in age at marriage were found to be substantial. Differences in marriage behavior by religion and citizenship were evident even after educational level was controlled. Selected demographic characteristics, household status, and migration status were also found to have a close association with nuptiality.

Using Coale's and Hull and Saladi's indexes, I examined the relation between marital dissolution and fertility. Marriage dissolution was found to be less prevalent in urban than in rural areas and inversely related to educational and occupational status. The difference between urban and rural areas in the prevalence of widowhood was probably due in part to mortality differentials related to socioeconomic status. The urban-rural difference in the extent of divorce and separation could be due to several factors. Divorce and separation were somewhat more common among Moslem than among Buddhist and Christian women. Chinese citizens had a higher separation rate, but a lower divorce rate, than Thais. Women classified as household heads had a greater tendency to have broken marriages, especially through widowhood, than other women. The data implied a positive association between marriage disruption and the migration of men, but not of women.

Marital stability proved to be strongly related to fertility outcome. Cumulative fertility, as measured by number of children ever born, was lowest among divorced women, followed by separated and widowed women respectively. Currently married women were characterized by the highest fertility. Data on current fertility, as measured by the number of own children born within the five years preceding the 1970 Census, showed a similar pattern. For cumulative fertility, the pattern was consistent in all educational groups, though differentials were more pronounced in the lower educational strata, perhaps reflecting greater contraceptive practice among more highly educated women.

This study has shown that in Thailand socioeconomic development, marriage age and proportions married, marriage dissolution, and fertility are closely related to each other. It appears that in the course of national development marriage has been delayed and the stability of marriage increased. But marriage disruption through divorce, separation, and widowhood is still an important influence on fertility in Thailand. The strong association between nuptiality and level of national development suggests that government policy fostering improved status for women could be more effective in delaying their marriage than legal measures to prohibit early marriage. Such a policy would be beneficial not only in furthering the objective of fertility reduction but in promoting the stability of marital life of women as well. Lastly, from a demographic viewpoint, it will be interesting to see whether linkages between national development and marriage and between marriage and fertility weaken as contraceptive use becomes widespread in Thailand, as seems to have happened in many developed countries.

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THE VALUE
OF CHILDREN

The value of children to Australian, Greek, and Italian parents in Sydney

Victor J. Callan

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PREFACE

This paper is a revised and extended version of a doctoral thesis submitted in 1979 at the Australian National University, Canberra. The work was entitled "The value and cost of children to Australian, Greek and Italian parents." My supervisor was Dr. Russell Darroch, who has been involved in research on the value of children in Indonesia. My deepest thanks to him for his encouragement and friendship over the period of this research.

Comments provided by reviewers of the thesis have contributed substantially to the directions of analyses followed in the report. My thanks again to Professors John Caldwell, James T. Fawcett, and Jacqueline Goodnow. In addition to their comments, I have received useful observations on the findings of the study in papers presented during 1979 at the Australian Social Psychology Conference (Sydney, Australia), the Tenth Summer Seminar in Population (East-West Population Institute, Honolulu), and the International Conference on the Year of the Child (Canberra, Australia). Finally, I wish to thank Sandra Ward, publications officer of the East-West Population Institute, and Margaret Johnston, graduate research assistant of Kelvin Grove College, Brisbane, for their considerable editorial assistance.

Financial support for the research was provided by the Australian Department of Health and the Australian National University.

ABSTRACT Findings are reported from interviews of 717 husbands and wives living in Sydney, Australia. The respondents were all parents with at least one child. All parents were of Australian, Greek, or Italian descent. The analysis presented is based predominantly on responses to open-ended and structured questions, and upon comments made by parents after completing the questionnaire. Discussion of family formation revealed that the first birth among all parents led to feelings of happiness, excitement, and pride. Southern European parents in particular highlighted the value of the child in starting the family. The first birth produced various motivations for a second child, including the prevalent desire not to have a spoiled, lonely single child and a preference for a child of a particular sex, most often opposite to that of the first child. Economic costs of children were mentioned prominently in connection with all births. From first to later births, however, there were decreases in concerns over childrearing skills, and more frequent mentions of the difficulties of sharing time and affection between children. Whereas responses to open-ended questions emphasized the salience of social and psychological issues upon family formation, general attitude statements proved only partly successful in showing the effect of social and psychological variables upon family-size decisions. The results of the study are discussed in relation to the growing acceptance of the smaller family in Australia.

Within Australia there have occurred dramatic changes in fertility rates and family formation patterns in recent decades. The most successful interpretations of the complexity of these demographic trends have been presented in the First Report (1975) and the Supplementary Report (1978) of the National Population Inquiry.

Overall, the picture that has emerged from these analyses is a long-term trend toward the acceptance of the smaller family at the expense of family sizes of four or more children. For example, in 1911 the national average parity of married women aged 45 to 49 was approximately five children. According to the 1976 Survey of Birth Expectations (Australian Bureau of Statistics, 1976), however, women of ages 20 to 29 expected to have only 2.4 children. The significance of this level of fertility is that it is below the smallest average completed family size ever recorded in Australia. Together with this trend toward three- and two-child families, more couples are delaying the birth of the first child and hurrying up family formation so that four out of five women have completed childbearing by the age of 30.

Why is there a growing trend toward the three- and two-child family, and a desire to spend fewer years involved in childbearing? There appears to be no single explanation. However, reports of the National Population Inquiry, of the Australian Family Formation Project, and of the Melbourne Fertility Study (Department of Demography, Australian National University) have indicated the influence of many prominent factors. A major reason appears to be the increased knowledge and use of more efficient methods of birth control. The Australian fertility literature has also given considerable attention to higher expectations of material living conditions and desired levels of affluence; changing attitudes toward marriage and a growing acceptance of unmarried couples living together; changing attitudes toward divorce, the permanency of marriage, and sexual freedom prior to marriage; greater tolerance toward abortion; changes in the roles and status of women, in particular increased participation of women in the workforce; the higher education of parents and in turn higher educational aspirations for children, or at least a longer commitment to their education; and the likelihood of attractive options in life style and personal development after childbearing.

AIMS OF THE SURVEY

Why study the value and cost of children to Australian, Greek, and Italian parents living in Sydney? A major reason was that there is an obvious need to study the value of children to parents in order to understand why people want children and why they choose to have children over available alternatives. To date in the Australian fertility literature, there has been little attempt to define the value of children to parents and to evaluate the relationship between couples' perceptions of the benefits and costs of children and their decisions about family size. The importance of such information on couples' perceptions of the value of children is further emphasized when one examines the findings reported from the Melbourne Fertility Study and the National Population Inquiry. Many of the relevant variables presented in these reports as explanations for the decline in the desire for larger families can be viewed as being conceptually consistent with the cost-benefit-alternative model proposed in the original value-of-children (VOC) framework developed by Hoffman and Hoffman (1973). Except for the KAP (knowledge, attitudes, and practices concerning family planning) framework used in the Melbourne Study, however, there has been little effort so far to use any conceptual scheme to examine childbearing motivations and family-size preferences in Australia. In the present survey, the Hoffmans' model was used in the organization of issues to be examined—that is, the benefits and costs of children, and alternative sources of satisfaction. Furthermore, implicit in the design of the survey was the conceptual scheme of Arnold et al. (1975), in which values associated with children are seen as intervening between the socio-demographic background and general psychological orientations of parents on one hand and their fertility attitudes and behavior on the other. Although I have not used the Arnold et al. framework in any extensive way to examine the survey findings, I partly tested it in determining whether the VOC dimensions had a significant predictive effect on family-size variables and attitudes toward contraception, independently of economic and socio-demographic variables.

There were several reasons for examining the childbearing motivations of not only Australian-born couples but also the immigrants who have come halfway around the world to find a new life in Australia. A major reason was the availability of the rich data obtained in Phases I and II of the Value of Children Study (Arnold et al., 1975), which has investigated the values and costs of having children to parents in selected socioeconomic and cultural groups. The VOC project showed that the value and cost of children can be meaningfully measured using methods of direct assessment with parents, for example, in Indonesia, the Republic of Korea, the Philippines, Taiwan, Thailand, and the United States. Moreover, different patterns of the value and cost of children have been shown for different sociocultural groups (see Fawcett, 1976). Overall, the studies in various countries have shown a relative paucity of differences in the childbearing motivations between husbands and wives. Indeed, most differences were attributed to traditional sex-role beliefs.

Another reason for evaluating the childbearing perceptions of Australian-born and immigrant parents is that one in five Australians was born overseas. Greek and Italian immigrants are among the largest non-English-speaking immigrant communities in Australia's largest cities. In addition, studies of Australian and immigrant women (Caldwell et al., 1973) have highlighted the distinctiveness of Southern Europeans in fertility attitudes and behavior. Their acceptance of the two-child family ranked between the low acceptance rate of Australian-born Catholics and the high rate of Australian and Northern European women of Protestant or no religious affiliation (Ware, 1975). Yet

Caldwell et al. (1973) found that Southern European women had one of the lowest levels of approval of family planning and that Italian women had the lowest level of contraceptive use.

My purpose in investigating the value of children was to establish empirical data on the reasons why Australian, Greek, and Italian husbands and wives wanted children and on the relationship between their perceptions of the values, costs, and alternatives and the number of children they wanted. I did not expect that the project would answer all questions about what is happening to parents during family formation in Australia, but I hoped it would improve understanding of attitudes toward having children from a social and psychological viewpoint. The question of why Australians want fewer children today than in earlier years can be answered fully only when we know reasons for wanting any children and the alternative values that appear to be competing against a long-term involvement in the bearing and rearing of children. In contrast to most Australian family studies, I adopted an interactive approach in which both husbands and wives were interviewed. Few researchers have followed this approach (cf. Fallding, 1957; Richards, 1978), and even the more recent study by Richards did not give equal status to mothers and fathers in either the collection or the interpretation of the data.

METHOD

Major fieldwork for the study was conducted in Sydney between May 1977 and February 1978. Sydney was chosen as the survey site because approximately one-fifth of Australia's population lives there. Another consideration was the large size of its immigrant population, consisting predominantly of the British-born and major concentrations of Southern Europeans born in Greece and Italy.

Several issues shaped the sampling procedures used in the study. One constraint was that I was conducting the study alone in partial fulfillment of my doctorate. I did, however, receive funds from the Australian Department of Health which allowed me to obtain interviewing assistance for a sample of 400 immigrants unable to complete the questionnaire in English. In order to maximize resources and interview as many parents as possible in the time available, I used sampling techniques that produced an unrepresentative sample. My main strategy for locating eligible respondents was through the use of a "snowball," or referral, technique. By this means, parents who had been successfully interviewed gave the interviewer the names and addresses of other Australian, Greek, and Italian parents they knew who met the eligibility criteria. To avoid the concentration of respondents from very similar family backgrounds, couples were requested to give the names of friends and other associates, but not of brothers or sisters. Two advantages of this "snowball" were that it saved valuable time and research funds in the location of eligible parents, and it reduced the fears of many parents in providing personal information to a stranger.

Respondents selected for the interviews were once-married parents with at least one child. All respondents were living with their spouses at the time of the interview. Wives were under 40 years of age, so that almost all were still rearing children. There was no age limit for husbands. To meet the ethnicity criterion, respondents had to have been born in Australia, Greece, or Italy. Those born in Southern Europe had emigrated to Australia generally when young children or adults. Both parents had to be from the same country. A person who failed to meet any of these criteria was excluded from the study. Use of the criteria for marital status, parental status, and wife's age permitted comparison of the sample with other VOC samples studied by Arnold et al. (1975).

The sampling strategy had two stages. To overcome immigrant couples' fears and lack of interest in answering a questionnaire, and to make up for loss of respondents due to the eligibility criteria, I decided to sample initially in ten residential blocks randomly chosen from census maps for their relatively high concentrations of Southern Europeans. I found, however, that even though the areas were labeled as having higher concentrations of Greeks and Italians, the largest proportions of people living in these locations were Australian-born. After screening 593 households in the five "Greek" and five "Italian" residential blocks, my bilingual assistants and I located 15 Australian-born, 16 Greek-born, and 11 Italian-born couples who met all criteria and agreed to be interviewed. The overall refusal rate was 17 percent, and noncontacts, despite up to three return visits to households, totalled 39 percent.

All parents who successfully completed interviews during the first phase were asked to give names and addresses of any friends who they believed satisfied the eligibility criteria. This referral sampling produced the majority of interviews. During the screening and referral phases, the team of bilingual assistants and I interviewed altogether 366 households. I completed approximately 400 interviews and my Greek and Italian assistants handled the remainder. Overall, 315 Australian-born, 209 Greek-born, and 203 Italian-born parents were interviewed in the nine months of fieldwork. Ninety percent of Greek respondents and

81 percent of Italians completed the interview in their native languages. On average, interviews ranged from one and a half to two hours in length. All respondents were interviewed separately.

The questionnaire

The interview schedule used in the Sydney survey was developed from pilot interviews in Canberra during 1976–77, and from questionnaires made available by researchers involved in the Value of Children Study directed by the East-West Population Institute. The main content of the questionnaire is summarized under the following headings:

1. Screening for eligibility
2. Number of children: name, age, birthdate of each own and adopted child
3. General advantages and disadvantages of having children
4. Advantages and disadvantages of having the first, second, and third child
5. Family size: present family size, number of additional children wanted, total number of children
6. Attitudes toward childlessness and the single child
7. Advantages and disadvantages of having a newborn child
8. Value of a son and a daughter
9. Ratings of specific costs in having children: financial, emotional concerns, restrictions, and overpopulation costs
10. Coombs et al.'s (1975) measure of sex and number preference
11. Attitudes toward having children (This list of 63 Likert-type attitude items was developed from 45 statements used in Phase I of the Value of Children Project [Arnold et al., 1975]. The number of attitude items was expanded to cover values and costs of children mentioned by Australian-born and immigrant parents during the pilot studies in Canberra in 1976, and to include attitude statements concerning the pleasure of children, the fun of playing with them, and the problems involved in disciplining and rearing children, which were not examined adequately in Phase I of the Value of Children Project [Arnold and Fawcett, 1975; Bulatao, 1975].)
12. Working women: women at work and nonworking women
13. Background information: place of birth, size of family of origin, father's occupation when respondent was 13 years of age, location of any extended family, date of marriage, attitudes toward housing and economic position, advantages of living in Sydney
14. Level of schooling and tertiary education
15. Husband's occupation, wife's occupation, income of each
16. Religion as a child and at present
17. Educational aspirations for the children and personal aspirations for the parent
18. Questions to Southern Europeans on language spoken in the home, types of financial assistance given in immigration, willingness to send children to ethnic schools

19. Measures of decision-making; degree of decision-making with each birth; measures of personal freedom given to wives; reasons for delaying the first birth
20. Knowledge of, attitude toward, and use of contraception
21. Perceived influence of children on a person's life
22. Record of persons who referred interviewer to the couple, and addresses of other parents given after the interview
23. Interviewer notes summarizing further discussion or interaction with the parents after the completion of interviews

Coding and processing of the questionnaires

Coding of all questionnaires was completed between December 1977 and late February 1978. All interview schedules were coded by me and "blindly" recoded by a research assistant. Any differences in the two sets of coding were resolved through discussion. Overall, I believe this procedure resulted in a high quality of coding. The framework for coding the open-ended responses was based upon that developed for the Value of Children Study (Angeles, 1978) and expanded in many sections to be more suitable for the Sydney interviews (Callan, 1979).

All data punching was completed by the Data Processing Unit at the Australian National University (ANU). The data were punched directly from the questionnaires onto disk, repunched, verified, and stored on the UNIVAC 1108/1142 at the University. Various Fortran programs were run to test for logical, internal, and other consistencies within the data. Any inconsistencies were resolved through checks of the original questionnaires.

CHARACTERISTICS OF THE SAMPLE

To assess the value of children in the three ethnic groups and across social boundaries, I divided the sample into various socioeconomic status (SES) categories. By applying the 16 categories of the ANU status scale (Broom et al., 1977) to the code for the occupation of the husband and by collapsing scores, it was possible to divide all ethnic groups into three SES groups based on occupational category. They were professional-managerial (ANU status scores for categories 1–6), white-collar and skilled manual (ANU status scores for categories 7–9), and semi-skilled and unskilled manual (ANU status scores for categories 10–16). For ease of presentation, these socioeconomic groups are labeled as professional, skilled, and unskilled.

Table 1 presents the percentage distributions and means of selected background characteristics of respondents. The age distributions indicate that higher proportions of Greek and Italian respondents than of native Australians were over age 40. The explanation lies in age differences between husbands and wives. Australian husbands were on average 2.4 years older than their wives, Greek husbands were 3.2 years older, and Italian husbands were 6.1 years older.

On average respondent couples had 2.4 children. Greeks were the most likely to have only two children. Not shown in Table 1 is that length of marriage was similar among the three ethnic groups, with Australian and Greek couples being married for 11 years and Italians only slightly longer, for 13 years.

In general, the Southern Europeans have a social and cultural distinctiveness that is reflected in their disadvantageous position on most socioeconomic measures (Ware, 1974; Commission of Inquiry into Poverty, 1975). On the whole, immigrants in the Sydney survey had received less education than native Australians. Even among the professional status group, 15 percent of Italians and 36 percent of Greeks had received less than seven years of schooling, whereas only 2 percent of Australians had received this level of education. Most immigrant males in the higher income groups were in fact "self-made" men, who through long hours of employment in small shops and retail outlets and through the assistance of their wives and children had developed successful family businesses. In the skilled and unskilled status categories, immigrant males were more likely than Australians to be employed as production-line workers and laborers.

Half of all wives were working full or part time. However, more Southern European than Australian women were working in the unskilled occupations. Only 4 percent of Australian working women were employed as factory workers and laborers, compared with 20 percent of Italian and 33 percent of Greek working women.

Some insight into the lower occupational status of immigrant husbands and wives was gained from information on the length of time they had lived in Australia. Number of years in Australia was to a fair degree positively related to the socioeconomic position attained by an immigrant parent. For example, only 12 percent of Greeks and 28 percent of Italians in the professional group had lived in Australia for less than nine years. In comparison, 27 percent of Greeks and 36 percent of Italians in the unskilled groups had been in Australia for less than a decade. On several other indices, respondents who had lived in Australia longer were more satisfied with their financial and housing situation, and more likely to be self-employed in small businesses and companies, than other immigrants. Interviewers' reports based on discussions after completion of the questionnaire also indicated that

TABLE 1 Percentage distributions of selected sociodemographic characteristics of respondents by status and ethnic group

Characteristic	Professional			Skilled			Unskilled			
	Australian	Greek	Italian	Australian	Greek	Italian	Australian	Greek	Italian	All respondents
NUMBER	107	60	60	102	51	83	96	98	60	717
AGE										
19–24	6	7	3	7	6	5	10	9	5	7
25–29	22	20	13	29	28	14	21	8	13	19
30–34	35	22	20	29	29	28	34	21	25	28
35–40	32	34	40	31	26	32	21	45	32	32
> 40	7	17	24	5	11	21	14	17	25	14
$\overline{X}$	33	35	37	32	33	35	33	36	36	34
LIVING CHILDREN										
1	28	23	14	12	28	15	18	15	23	19
2	33	53	50	39	50	39	39	62	30	44
3	22	21	27	33	18	27	25	14	25	23
4	7	3	0	8	0	12	15	9	10	8
5	6	0	3	8	4	7	2	0	10	4
6	0	0	3	0	0	0	1	0	2	1
7	4	0	3	0	0	0	0	0	0	1
$\overline{X}$	2.5	2.0	2.5	2.6	2.0	2.6	2.5	2.2	2.6	2.4
YEARS AT SCHOOL										
0–5	2	3	12	1	4	36	1	12	37	11
6–7	0	33	3	5	39	26	16	54	18	20
8–9	32	25	25	58	33	28	65	15	25	36
10–11	51	17	5	32	12	4	14	10	13	19
12–13	15	22	55	4	12	16	4	9	7	14
$\overline{X}$	10	9	10	8	8	7	9	7	7	9

HOUSEHOLD INCOME (Australian dollars)										
6,000	0	0	0	0	0	0	2	2	10	2
6–8,999	4	0	0	2	4	9	6	18	10	6
9–11,999	13	20	16	26	23	20	26	26	27	22
12–14,999	0	24	17	39	31	22	25	16	30	24
15–17,999	0	33	23	6	19	20	23	26	17	20
⩾ 18,000	44	23	43	27	23	29	18	12	6	26
$\bar{X}$	17,130	15,633	17,067	14,510	14,385	13,774	13,774	12,700	11,871	14,615
HUSBAND'S OCCUPATION										
Professional, technical, related	70	13	30	0	0	0	0	0	0	14
Administrative, executive, managerial	22	7	20	0	0	0	0	0	0	6
Clerical	0	0	0	28	15	0	0	0	0	5
Sales	4	80	50	10	4	19	9	4	7	18
Transport, communication	0	0	0	2	4	0	25	14	7	7
Trades, production line	0	0	0	59	77	81	49	64	43	42
Service, sport, recreation	0	0	0	0	0	0	9	12	30	6
Armed services, study, other	4	0	0	2	0	0	0	0	0	1
Unemployed	0	0	0	0	0	0	8	6	13	3
PERCENTAGE OF WIVES CURRENTLY WORKING	43	56	53	53	46	46	51	50	50	50
YEARS IN AUSTRALIA										
1–5	na	5	10	na	26	8	na	16	8	12[a]
6–9	na	7	18	na	6	20	na	11	28	15[a]
10–13	na	17	13	na	31	18	na	23	22	20[a]
14–17	na	20	8	na	18	29	na	33	22	23[a]
18–21	na	23	28	na	8	10	na	10	7	14[a]
22–25	na	17	18	na	11	11	na	7	10	11[a]
⩾ 26	na	11	5	na	0	4	na	0	3	4[a]
$\bar{X}$	na	18	15	na	12	14	na	13	13	14[a]

TABLE 1 *(continued)*

Characteristic	Professional			Skilled			Unskilled			All respondents
	Australian	Greek	Italian	Australian	Greek	Italian	Australian	Greek	Italian	
FATHER'S OCCUPATION WHEN RESPONDENT WAS 13 YEARS OLD										
Professional, technical, related	20	0	20	8	0	6	5	1	7	8
Administrative, executive, managerial	10	0	0	2	0	1	3	0	2	3
Clerical	7	2	7	8	4	1	3	3	3	4
Sales	12	23	20	9	24	16	13	13	8	14
Farming, fishing, related	2	40	10	8	37	25	6	53	22	21
Transport, communication	8	2	5	9	12	4	19	3	7	7
Trades, production line	29	25	28	50	20	36	35	10	35	31
Service, sport, recreation	6	0	3	2	0	4	7	3	8	4
Armed services, other	1	4	7	1	0	3	1	3	5	2
Invalid, deceased	8	3	0	6	4	5	7	10	3	6
RESPONDENT'S RELIGION										
None	23	0	2	24	0	0	23	1	0	10
Catholic	36	0	93	29	0	99	25	0	93	40
Protestant	34	0	0	42	0	0	42	1	0	17
Greek Orthodox	0	100	0	1	100	1	3	98	3	30
Other	8	0	5	4	0	0	7	0	3	4

NOTE: Percentages may not sum to 100 because of rounding.

na—not applicable.

a Applies to immigrants only.

parents who had lived in Australia a shorter period were less fluent in English.

Another partial explanation of the predominance of Southern Europeans in the less skilled occupations comes from data on childhood background. As Table 1 indicates, the Australian-born and Southern Europeans were raised in different environments—industrial versus rural. For example, only 5 percent of Australian-born respondents had fathers employed as farmers or fishermen, compared with 45 percent of Greek and 20 percent of Italian respondents. Sixty-eight percent of Greeks and 41 percent of Italians lived as children in small towns and villages, but only 13 percent of native Australians had lived in similar environments. In fact, 81 percent of Australian respondents had spent part or all of their childhood in metropolitan areas such as Sydney and Melbourne.

What this description of background characteristics has indicated is that according to various measures of education, employment status, income, and language ability, Southern Europeans were in a less favorable position than the Australian-born. The effect of these differences, together with the desire of immigrants to segregate themselves residentially by living in areas of high immigrant concentration, was the continued reinforcement of the divisions between Southern Europeans and Anglo-Australians in status, attitudes, and behavior. The extent to which status and cultural differences were reflected in the values and costs of having children is evaluated in the following sections of the paper.

OPEN-ENDED MEASURES OF FAMILY FORMATION

Interpretations of the family building process experienced by Sydney parents are based upon responses to the following measures: the advantages and disadvantages in having a first, second, and third child; perceptions of the degree of decision-making involved; attitudes concerning an only child; reasons for delaying the first birth; and length of birth intervals. In an earlier report (Callan, 1979), I analyzed family formation within socioeconomic status groups. My major findings were that economic costs were mentioned more by parents in the skilled and unskilled groups, and most often by Southern European respondents in these groups; that emotional concerns were salient across all ethnic categories; and that Australian and immigrant parents in the professional groups emphasized more the restrictions and lost opportunities caused by having children than did nonprofessional respondents.

A shortcoming of that earlier report was that it did not examine in detail the value and cost of children separately to husbands and wives in each ethnic group. Nor was a rich source of information gained in the postinterview discussions fully presented. The core measures of the perceptions about raising a family were the questions on the advantages and disadvantages of having each child. As the questions were open-ended, requiring that respondents mention one or two advantages and disadvantages of each birth, interviewers found that they obtained more detailed information when they put the questions in the context of the respondent presenting a brief history of his or her family building experiences. For Australian and immigrant parents, the interviewers would open the discussion with the comment: "Tell me in as much detail as you like, your feelings and the circumstances surrounding the birth of each child in your present family. Start from the time when you were newly married." Using the advantage-disadvantage framework, the respondent and the interviewer spent from ten to 20 minutes clarifying the major benefits and costs of each birth. I followed this approach because I believe each birth is influenced by a different set of circumstances, and each affects the probability and timing of subsequent births (Mishler and Westoff, 1955). The description of the family building pattern in this section may not be applicable to all Australian, Greek, and Italian parents living in Sydney and Australia. However, to date in the Australian fertility literature there has been no similar interpretation of the economic, social, and psychological influences upon couples as they establish their families.

The first birth: a socially important event

One inherent disadvantage of the Sydney sample is that four-fifths of the parents already had two or more children. So, in attempting to understand present trends in fertility and family formation, the analyses are based on information provided by couples who had completed or almost completed their families. On the other hand, the generation of women who have borne children since 1961 (including all women in the present sample) is responsible for one of the sharpest declines ever recorded in Australian marital fertility rates (National Population Inquiry, 1978). The attitudes expressed by respondents in Sydney should therefore provide more information about why both native-born and immigrant Australians want fewer children than in the past and why it appears that they want to be finished with bearing children by age 30.

The initial questions to answer are: When did parents have the first child, and what does this information together with the value and cost of the first born reveal about the desire for children in Australian society? Table 2 presents the actual spacing of the first birth and the ideal spacing preferred by women.

After two years of marriage, 59 percent of Australian women, 72 percent of Greeks, and 57 percent of Italians had at least one child. Overall, responses indicate that most women, and possible their husbands as well, wanted a child within the initial years of marriage. Moreover, if given the opportunity again, Southern European wives would still have wanted a child in the early years of marriage. Although Australians were less likely still to want a child within two years of marriage, 79 percent of Greeks and 64 percent of Italians still wanted the first birth in this period. One possible interpretation of this result is that immigrant women ignored the idea behind the question and merely reported spacing similar to the actual birth interval. Another interpretation, based upon the mentioned advantages of having the first child, is that Southern Europeans did have and preferred to have the first child within two years after marrying. Thirty-two percent of Australians, if starting a family again, would delay the first birth from three to six years. In comparison, only 9 percent of Greek and Italian women would be willing to delay a birth for that period of time. As one Italian mother explained: "Sure, marriage is for having children, but a couple does need time to enjoy themselves before being tied down by a family. But why wait five years when having children completes the marriage and brings you closer to your husband?"

Table 3 and impressions gained in postinterview discussions with Greek and Italian parents support such expressions. Simply put, there was an immense social importance in having a child in the Southern European community. In describing the advantages of having children, immigrant couples mentioned their happiness and pride in finally becoming parents. Having a child fulfilled the marriage, started the family, and established the couple within the Greek or Italian community. In other discussions, Southern Europeans spoke of the air of expectancy surrounding them as their parents, in-laws, and other relatives talked about the children that everyone expected the young couple to have. For Australians, there were also feelings of pride and happiness, but they expressed a greater range of advantages in having children.

There was a fair degree of similarity in the responses of husbands and wives. One interesting difference, however, was the emphasis Australian husbands, especially those in the nonprofessional status groups, placed upon the fulfillment of oneself from having children. Southern

European husbands emphasized their satisfaction in starting a family with the first birth. Australian husbands and Greek parents mentioned their pleasure in having a son, but Italian parents did not; this issue is examined in more detail with the Coombs measure of sex preference.

Having the first child also entailed disadvantages (Table 3). Sizable proportions of husbands and wives in all ethnic groups mentioned economic costs. The most interesting ethnic differences were in the discussions of restrictions due to children. Australian and Italian respondents were concerned about the general restrictions and minor inconveniences caused by children. Greeks, however, emphasized more the social restrictions. Italians were more likely to express a concern about the responsibility of having children. Even with probing, Italian respondents were unable to be more specific about this general concern, and, as one Italian woman said, "It is just the fact that they are continually on my mind." Interestingly, immigrant parents were more likely than Australians to respond that there were no disadvantages in having children. When the question of disadvantages was raised again at the end of the interview, some respondents were so angered by the interviewer's suggesting that disadvantages might exist that they left the room. As implied in the advantages respondents mentioned, the pride, happiness, and benefits to the marriage of parenthood outweighed for some immigrants any economic or emotional disadvantages.

More Australian and Italian husbands than wives mentioned the economic cost of the first child, but similar proportions of Greek husbands and wives indicated economic concerns. More Greek and Italian husbands than wives mentioned the worries and responsibilities of a family. Australian husbands mentioned more than their wives the inconveniences, social restrictions, and lost sleep caused by having a child. But, to judge from impressions gained in visits to respondents' homes, Australian husbands appeared to be involved in more social activities at night and on weekends than any other group. Because of these social and sporting activities, they were by far the most difficult group to arrange to interview.

Wives in all ethnic groups mentioned more frequently than husbands their concerns about caring for the first child. Although the child offered them novel and exciting experiences, as well as deep feelings of pride, they were faced with indecision and uncertainty as they learned about child care. Especially among the Australian women, the majority of whom had been employed in skilled and professional work before marriage, it was an immense letdown to go from being competent and experienced in the workforce to being incompetent and inexperienced in childrearing, which most believed to be their natural role in life.

That some respondents thought there was an appropriate time to have the first child is indicated in reasons for delaying the first birth given by women who had their first child during the second year of marriage or later (Table 4). Their major concerns were financial, the parents wanting to save money and if possible purchase a home before starting a family. Immigrant wives were more likely than Australians in all status groups to mention this general financial concern.

There was general agreement among Australian and Southern Europeans, especially respondents in the professional group, that couples should not have children until they knew more about each other and were more assured of the success of the marriage. However, as divorce is very uncommon in the Italian and Greek communities sampled, and having a child was perceived by respondents as a blessing upon the marriage, few Southern Europeans could recognize any advantage in delaying the first birth until the third or a later year of marriage.

The second child: increased salience of sex preference and family completion motives

Within an average period of 33 months after the first birth, the second child was born. Parents indicated that the second child, in comparison with the first, was less likely to have "just come"; and in all ethnic groups the majority of respondents, from 58 percent of Australian men to 82 percent of Greek men, believed that both parents had planned the second birth (Table 5). In fact, joint decision-making seems to have been more characteristic of the second than of either the first or the third birth.

Overall, the assessments of husbands and wives were similar. The major discrepancies were among the Greek parents over the extent of joint decision-making about the second birth, and, among Italians, the degree to which the third child was jointly planned.

Before examining the motivations for having the second child, it is necessary to examine the attitudes of parents concerning an only child. Almost 10 percent of parents in the Sydney survey had considered having an only child, but only 3 percent expected to have one child as their completed family.

Table 6 presents the salient reasons for considering the notion of an only child cited by those who had considered it and the reasons for rejecting the notion mentioned by other respondents. The most often mentioned advantages of having an only child were that parents could give more, materially and emotionally, to a single child. But many re-

TABLE 2 Actual and ideal spacing of the first child
(Percentage distribution of women who mentioned specific time intervals by ethnic group)

	Actual spacing				Ideal spacing			
Time interval	Australian	Greek	Italian	All respondents	Australian	Greek	Italian	All respondents
1 year and under[a]	35	36	29	34	11	40	14	20
1–2 years (includes 2)	24	36	28	29	27	39	50	37
2–3 years	22	15	19	19	30	13	28	24
3–4 years	5	5	13	7	15	5	4	9
4–5 years	8	5	6	7	10	2	2	6
5–6 years	1	2	1	1	3	2	0	2
More than 6 years	4	2	5	4	4	0	3	3
Number	158	106	101	365	158	106	101	365

NOTE: Percentages may not sum to 100 because of rounding.

[a] Includes women who had child before marriage.

TABLE 3 Advantages and disadvantages of having the first child
(Percentage of respondents who mentioned specific advantages and disadvantages, by ethnic group and sex)

Advantage or disadvantage	Australian		Greek		Italian		All respondents
	Male	Female	Male	Female	Male	Female	
ADVANTAGES							
Happiness, excitement	20	20	38	39	45	50	33
Feeling of pride	22	25	37	38	44	32	32
Closeness between husband and wife	12	13	25	33	7	7	16
Fulfillment of oneself	16	5	2	8	8	10	9
Child started the family	2	4	11	4	22	11	8
Enjoyment from growth and development	14	14	4	5	0	0	7
Child was a boy	11	4	17	10	0	1	7
Feeling more settled	7	9	8	5	5	6	7
Enjoyment in playing with child	12	9	2	5	1	2	6
DISADVANTAGES							
Financial cost	33	22	17	19	25	18	23
Not knowing how to care for child	14	43	10	17	9	18	19
General restrictions, inconveniences	21	15	6	5	24	26	16
General worries, concern about responsibility	5	4	16	8	43	30	16
No disadvantages	3	1	26	26	10	12	11
Worry about health of child	14	10	7	13	8	6	10
Feeling socially restricted	17	4	16	11	2	3	9
Loss of sleep	10	3	5	2	12	9	7
Less time together	7	4	10	6	2	6	6
Physical tiredness	1	10	1	1	4	11	5
Number	147	158	103	106	102	101	717

TABLE 4 Reasons for not having the first birth within the first year of marriage
(Percentage of women who mentioned specific reasons, by status and ethnic group)

	Professional			Skilled			Unskilled			
Reason	Australian	Greek	Italian	Australian	Greek	Italian	Australian	Greek	Italian	All respondents
To get financially settled first	30	38	46	33	67	83	20	46	54	43
To get to know each other	46	19	46	22	25	35	30	23	21	31
Did not have a home	18	6	36	48	8	39	33	19	25	27
Tried to become pregnant but couldn't	18	19	9	15	25	26	17	23	13	19
Going out together, travel, social life	14	25	14	4	0	4	10	12	8	10
Establish permanent residence in Australia	2	6	27	4	17	22	0	8	21	10
Not ready to start, too young	7	19	9	15	8	13	13	0	4	9
Number[a]	44	16	22	27	12	23	30	26	24	224

[a] Number of respondents who did not have a child in the first year as indicated here (224) does not correspond to number in Table 2 (241). Calculations from data on date of marriage and date of first birth showed that 17 women did not report the birth of first child within the first year of marriage. Table 4 is based on these self reports.

TABLE 5 Extent of decision-making in having children
(Percentage distribution of respondents, by ethnic group and sex, who said decision to have specific birth was made by wife or husband, both, or neither)

Birth order and decision-maker	Australian		Greek		Italian	
	Male	Female	Male	Female	Male	Female
FIRST						
Wife or husband	3	6	6	14	11	7
Both	50	45	81	73	66	69
Neither	47	49	14	13	24	24
Number	147	158	103	106	102	101
SECOND						
Wife or husband	4	4	4	7	7	6
Both	58	61	82	74	77	76
Neither	39	35	13	18	16	18
Number	118	127	82	83	88	84
THIRD						
Wife or husband	7	8	0	0	11	2
Both	41	39	57	60	71	66
Neither	52	52	43	40	17	31
Number	63	71	23	25	46	44

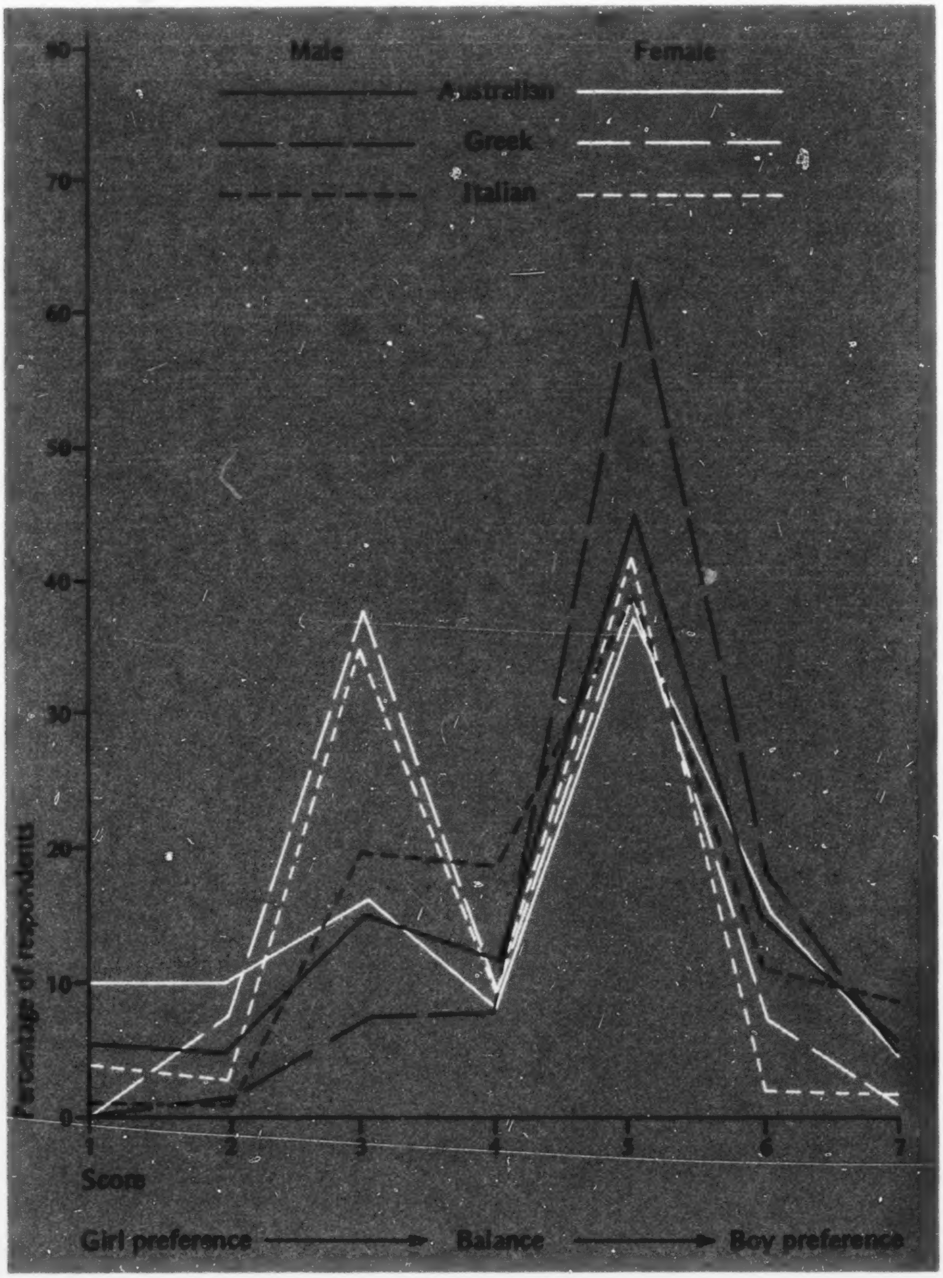
spondents cited medically-based reasons for considering a single child; for example, some women were unwilling to endure pregnancy and childbirth again, and others expected difficulty in becoming pregnant a second time. The reasons why 90 percent of parents did not consider an only child to be a completed family were mostly related to the emotional welfare of the first born. Australian and Southern European respondents drew upon the following stereotype, which was so often repeated in this way that it is possibly one of the most widely held stereotypes in Australian society: "An only child is lonely and spoilt. Also, the child doesn't learn how to share as he doesn't have any brothers and sisters." Many Italians added that one child was not regarded by persons in the Italian community as constituting a family. Greeks were more concerned about the possible death of a single child, the major implication of this being the loss of parental status and the end of the family. Most of their fears about the death of a child were not related to their experiences in Australia, but to the high incidence of child mortality the respondents had witnessed while growing up in the villages of rural Greece.

The advantages and disadvantages of having a second child are presented in Table 7. As a previous analysis indicated few differences in the advantages and disadvantages of a second child mentioned by respondents with two children and those with one child (Callan, 1979), the responses of both groups are shown in Table 7. In view of the major reason given for not wanting a single child (that the child would be lonely), it is not surprising that the benefit of companionship for the first child was the salient advantage to all parents in all ethnic groups. When compared with the advantages of having the first child, the advantages of a second were characterized on one hand by a decline in the salience of personal satisfactions such as pride, fulfillment, and benefits to the husband-wife relationship, and on the other by greater emphasis on family completion. In addition, respondents stressed the desirability of having children of both sexes for a balanced and complete family.

The questionnaire attempted to discover whether respondents preferred children of a particular sex. Figure 1 presents sex-preference distributions for husbands and wives in each ethnic group, based on the sex-preference scale developed by Coombs et al. (1975). Depending on the choices made, each respondent fell into a given interval on a sex-preference (IS) scale of 1 to 7. Scale values from 1 to 3 reflect a descending bias for girls, 4 indicates a preference for a balanced composition, and 5 to 7 an increasing bias for sons. Most distributions peaked at the score IS = 5, indicating a slight son preference. Greek husbands in particular expressed this slight son preference, as did Australian men to a lesser degree. Only Greek and Italian wives indicated as much preference for girls as for boys.

To add further meaning to these sex-preference scores, all respondents were asked to give two reasons for wanting a son and a daughter (Table 8). In comparison with Australians and Italians, Greek parents were more likely to mention the importance of having sons to carry on the family name—77 percent of Greek husbands gave this reason—and the benefits in having a son to protect the family. In postinterview discussions, Greek husbands and wives stressed the need for a son to ensure that daughters remained "good girls" (or, in other words, virgins). Sons were expected to take responsibility for chaperoning their sisters during social events at night, and to introduce their sisters to Greek males. On the other hand, Greek parents revealed a double standard of morality, for they expected their sons to have the social and sexual freedom to do as they wished. The salient reasons Australian husbands gave for wanting a son were to have a companion for

FIGURE 1 Sex-preference scores, by ethnic group and sex



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the father and, more specifically, to be able to teach a son things they knew about sports and handiwork around the home. Italian husbands and wives, whose son preference was balanced by a slight daughter preference (Figure 1), mentioned more often than other ethnic groups that sons and daughters have similar importance.

Whereas respondents felt that a husband needed a son for companionship, they believed that a wife needed the company of a daughter. Australian women mentioned numerous reasons for wanting a daughter that were based on the mother-daughter relationship, including the pleasure of dressing up a daughter and being able to talk to a girl about "women's topics." As an Australian mother said: "You have a lot of fun in dressing her up and in going shopping. As well, you can sit down and talk to a daughter more than you can with a son. A daughter understands what you are saying, and she can be a real comfort during difficult times."

Both male and female Greek respondents expressed a traditional view of the role of women in emphasizing that a daughter should be involved in work around the home. The Greeks regarded daughters as "second mothers" who were involved in cooking, care of younger children, and meeting the needs of the father and their brothers.

There are marked differences between the reasons given especially by Australian and Greek husbands and wives in wanting a son and a daughter. But most of the differences can be explained by a desire to share sex-related interests or by what was regarded as sex-appropriate behavior.

The reasons for wanting a son and a daughter and the advantages of a second child cited by respondents indicate that companionship benefits increased with the second birth. The second child was viewed as a companion not only for the first child but also for the parent of the same sex. The desire for this companionship appears to have led some women to ignore medical advice concerning the dangers of another pregnancy and have a second child. But social pressure may have also influenced their decision. Couples who had stopped at one, when interviewed about the attitudes of other parents, said they had been criticized even by strangers about their decision. Some parents had resorted to telling people that they were unable to have more children. They felt that pity was easier to endure than criticism.

The disadvantages of having a second child were similar to those of having the first (Table 7). Financial costs, general restrictions and inconveniences caused by children, and concern about the responsibility of parenthood were again mentioned by many husbands and wives.

In addition, however, the physical demands of children and concerns over dividing time and affection between siblings were mentioned by substantial percentages of respondents. Australian and Southern European women were more likely to mention these additional disadvantages than their husbands. Indeed, the role of care-giver both in practice and in sex-role expectations is still that of the mother.

Australian and Italian parents in particular mentioned the restrictions and inconveniences associated with having a second child. Post-interview discussions with them suggested why. For some couples, the first birth imposed the most restrictions. Other parents, however, described how they had rearranged their lives around the young child, so that once a routine was established, they experienced few major restrictions. But with the second birth, the degree of planning involved to reduce the restrictions outweighed the benefits that could be gained in time or personal freedom.

Three disadvantages shown in Table 7 deserve comment. First, the belief that there were no disadvantages in having children was expressed by fewer Southern Europeans in relation to the second child than to the first. Evidently few immigrants could ignore the financial burden of two children. Second, immigrant parents, especially respondents in semi-skilled and unskilled occupations, were more likely than others to mention the general financial cost of a second child and the need to work harder for the economic security of the family. A third interesting result was that some parents openly expressed their displeasure in not having that boy or girl who was going to complete the family. Cross-tabulations indicated that 70 percent of the respondents who were unhappy about the sex of the second child expected to have, or did have, a third child.

The third child

To complete the picture of family formation of the respondents in Sydney, we asked parents with two or more children to describe the advantages and disadvantages of having a third child. As the responses of parents with two or more children were similar (Callan, 1979), they are presented together (Table 9). Most of the advantages of the third child were related to benefits of family completion and the fulfillment of a sex preference. An advantage not mentioned before was the pleasure of sharing the new baby with the older children in the family. Australian wives were most likely to cite this advantage. Italian parents, in contrast to the other ethnic groups, emphasized their satisfaction in having a large family, and Greeks mentioned in general discus-

TABLE 6 Reasons for considering and not considering an only child
(Percentage of respondents who mentioned specific reasons, by ethnic group and sex)

Reason	Australian		Greek		Italian		All respondents
	Male	Female	Male	Female	Male	Female	
FOR CONSIDERING							
Able to give more financially	38	13	83	100	40	60	42
Could not cope emotionally with more	25	29	0	0	20	0	18
Problems in pregnancy, at delivery	19	25	0	0	0	10	14
Able to give more love and attention	0	8	17	33	20	20	13
Possibly could not become pregnant again	0	17	0	0	0	10	7
Number	16	24	6	6	10	10	72
FOR NOT CONSIDERING							
One child is lonely	53	72	58	69	47	43	58
One child is spoiled, selfish	53	43	28	22	23	19	33
One child is not a family	16	10	22	11	37	43	22
If child dies, we have no family	4	5	49	51	13	8	20
I like large families	8	10	6	8	13	16	10
Wanted two, a boy and a girl	7	1	7	8	13	9	7
Parents demand too much from a single child	8	8	0	0	9	3	5
Number	131	134	97	100	92	91	645

TABLE 7 Advantages and disadvantages of having a second child
(Percentage of respondents who mentioned specific advantages and disadvantages, by ethnic group and sex)

Advantage or disadvantage	Australian		Greek		Italian		All respondents
	Male	Female	Male	Female	Male	Female	
ADVANTAGES							
Companion for first child	59	57	58	67	51	65	50
Happiness of having two children	7	4	15	13	22	27	13
A completed family	10	8	15	19	11	8	11
More confident in the care of a child	10	27	2	4	6	6	10
Second child was a boy	12	9	10	12	6	3	9
Second child was a girl	7	15	6	13	1	2	8
A balanced, mixed family	11	3	10	8	7	3	7
A step toward having a large family	2	2	9	6	12	13	6
Enjoyment in playing with children	11	6	1	2	3	1	4
Individuality of children	8	9	0	1	2	0	4
DISADVANTAGES							
General financial cost	31	25	26	24	40	26	29
Physical demands of two	7	22	3	18	11	33	15
General restrictions, inconveniences	19	17	2	3	19	19	14
General worries, concern about responsibility	4	3	16	17	35	19	14
Having to divide affection and time	9	13	14	16	2	11	11
There are no disadvantages	4	2	26	18	5	7	9
Worry about health of children	12	9	5	8	2	6	8
Must work harder for economic security	0	0	14	7	15	9	6
Fighting of children	9	8	3	5	1	1	5
Second child not the sex I wanted	3	6	2	7	2	3	4
Number	147	158	103	106	102	101	717

TABLE 8 Reasons for wanting a son and a daughter

(Percentage of respondents who mentioned specific reasons, by ethnic group and sex)

	Australian		Greek		Italian		
Reason for wanting	Male	Female	Male	Female	Male	Female	All respondents
SON							
To carry on the family name	29	20	77	57	39	24	39
Companion for the father	53	20	20	6	23	10	24
To protect the family	3	8	24	32	10	9	13
Sons are the same as daughters	1	5	3	9	21	27	10
To provide brother for daughter	1	7	0	1	0	1	10
To balance the family	3	6	2	3	21	25	9
To teach a boy things I know	39	1	1	0	1	0	9
More loving	0	25	0	0	0	2	6
More independent	1	11	3	2	6	4	5
DAUGHTER							
Companion for the mother	18	39	32	66	35	32	36
To help around the house	7	7	65	50	17	20	25
More loving	36	6	0	4	10	6	12
To balance the family	14	3	9	1	24	23	11
Will maintain ties to family when older	2	15	8	6	8	13	9
Fun to dress up	5	25	1	6	0	5	8
Daughters are the same as sons	1	2	3	7	21	22	8
Girl talks more to mother about "women's topics"	2	24	1	8	1	1	7
Brings happiness into the home	10	2	12	7	6	0	6
Number	147	158	103	106	102	101	717

TABLE 9 Advantages and disadvantages of having a third child (Percentage of respondents who mentioned specific advantages and disadvantages, by ethnic group and sex)

Advantage or disadvantage	Australian		Greek		Italian		All respondents
	Male	Female	Male	Female	Male	Female	
ADVANTAGES							
Wanted a large family	6	8	5	11	24	23	12
Child completed the family	9	14	14	12	8	10	11
Child was a boy	14	13	11	6	6	5	9
Child was a girl	12	14	9	13	0	6	9
General pleasure	15	13	2	1	4	6	8
Sharing a new child with other children	8	11	1	1	11	8	7
Happiness of another child	6	6	4	8	10	13	7
DISADVANTAGES							
General financial cost	47	36	44	49	51	41	44
Tied down again	20	21	2	4	19	22	16
General worries, concern about responsibility	4	2	16	15	25	19	12
Having to divide affection and time	13	9	5	8	6	14	9
Physical demands of three children	4	13	2	10	8	19	9
Must work for economic security	0	2	10	5	12	6	5
Fighting of children	11	8	5	1	1	0	5
Number	118	128	81	84	84	83	578

sion that three children created a home atmosphere. Our experiences in the Greek households supported this response. Greek couples and relatives who were visiting took particular delight in the laughter and games of children in the home. In contrast, Australians were less patient and asked children to play outside when we were there.

The disadvantages of a third child and the frequency with which they were mentioned by almost all ethnic groups were similar to those of the second child (cf. Table 7). Immigrant parents, particularly couples in which the husband was employed in semi- or unskilled work, tended to stress the economic costs. The physical demands of children and the problems of dividing time and affection among the children were again mentioned more frequently by wives than by husbands. Almost 7 percent of respondents indicated that the third child was not of the sex wanted for a complete family; Greek wives constituted the largest proportion of this group.

A notable addition to the list of disadvantages was that the child tied parents down *again.* Australian and Greek wives were most likely to mention this disadvantage. In discussing this response, parents said that the two older children had reached a stage of development in which they were more capable of looking after themselves, and the parents could turn their attention back to themselves. Having a third child postponed this opportunity for personal development.

Australian and Italian women were more likely to mention being tied down by three children than their husbands. Other analyses disclosed that parents who emphasized the restrictions of another child were more likely than others to reveal in the measure of perceived decision-making that the third child "just came"–that is, was unplanned.

Evolution of values with parity

The overall picture that evolved from this discussion with parents of the benefits and costs of each birth was one of changing benefits and costs of children at different stages of family formation. These developments are summarized as follows.

The first birth, more than others, provided parents with feelings of happiness, excitement, and pride. Respondents felt more fulfilled and settled. In discussing the first birth, they were likely to mention their amazement over the rapid growth and development of the child and their curiosity in seeing what sort of child their union would create. Fawcett (1978), also analyzing VOC data, emphasized these curiosity motives and the symbolic importance attached to the first child.

The first birth produced various motivations for a second child. Responses to the Sydney survey indicated a prevalent desire not to have a single child, mostly because of the disadvantages to the child in being lonely and spoiled. Sex preference was also more often mentioned as a motive for the second birth, the preference usually being for a child of the opposite sex from that of the first-born. Additional benefits of the second child were companionship for the first-born and for the parent of the same sex. (See also Bulatao, 1979b; Fawcett, 1978.)

Possibly owing to their emphasis upon sex preference and family completion motives, respondents mentioned less frequently the advantages of happiness, pride, fulfillment, and benefits to the husband-wife relationship when discussing higher parity births. Another explanation is that these elements of childbearing motivation were fulfilled by the first and second births.

There was a decrease in childrearing concerns from the first to the second child as parents became more skilled in childcare. With the second and third child, concern focused on the physical demands of the children and the parent's inability to give sufficient time and affection to each child.

Respondents indicated a larger range of personal and social restrictions with the first child than with subsequent children. They were less specific about the type of inconveniences caused by having a second child, speaking merely of general restrictions. With the third birth, the major concern among female respondents was being tied down again by the demands of a young baby.

Number of children wanted

The question that follows from this analysis of childbearing motivations is: How many children did parents want in their completed family? Table 10 presents the means and frequency distributions based on cross-tabulations by sex of the parent, country of birth, socioeconomic status, and religion. Interestingly enough, no parent wanted to be childless. When respondents were ranked by the mean number of children they wanted, Australian-born Catholics in all status groups wanted the largest families. Eighty-four percent of Catholics in the professional group wanted three or more children, whereas only 39 percent of Greek professionals wanted a similar number of children. The middle ground in fertility intentions was shared by nonprofessional Italians and non-Catholic Australians in skilled and unskilled socioeconomic groups. Respondents most likely to want a smaller family were the professional non-Catholic Australians and all Greeks. Greeks in the professional group were more likely to want an only child than other Southern European and Australian respondents.

This evidence of the pronatalism of Australian-born Catholics, especially of those who were well-educated and employed in higher status occupations, is supported by the reports of the Melbourne Fertility Study (Caldwell et al., 1973; Ware, 1973). Possible explanations for the differences in family-size intentions between Australian-born and Italian-born Catholics are that Italian Catholics in general are less attached than the native-born to the Australian Catholic system of values (Day, 1964), and that the Australian Catholic education system is a strong reinforcer to Australians of the traditional teachings of the Church.

Contraceptive knowledge and practice

Knowledge of contraceptive methods was widespread among female respondents. All of the Australian women knew of at least some way of preventing or delaying a pregnancy, as did most of the immigrant women. But one Italian and seven Greek women reported that they did not know of any method. The Melbourne survey in 1971 also found that a small proportion of immigrant women were unaware of contraception (Ware, 1973), but the prominent explanation was that these women did not equate withdrawal with contraception.

Female respondents were asked what methods of contraception they were using at the time of the survey to plan, space, and limit births. The major methods of birth control are indicated in Table 11. Over a third of Australian Catholic and non-Catholic women were using the pill. Thirty-one percent of Catholics and 42 percent of non-

TABLE 11 Current methods of contraception
(Percentage distribution of women mentioning specific methods, by ethnic group)

	Australian				
Method	Catholic	Protestant or none	Greek	Italian	All women
Pill	44	41	39	66	49
Tubal ligation	18	29	3	5	13
Condom	13	5	13	8	9
Withdrawal	3	0	25	1	7
IUD	3	7	13	1	6
Vasectomy	13	15	0	0	6
Rhythm, Billing's[a]	5	0	1	3	2
Other	0	3	1	10	4
Refused to answer	0	0	5	6	3
Number	39	75	75	88	277

NOTE: Percentages may not sum to 100 because of rounding.

[a] Billing's method depends on the detection of fertile mucus and abstention from intercourse in the fertile time and four days afterward.

Catholics had chosen sterilization (either tubal ligation or vasectomy). Non-Catholics were somewhat more likely than Catholics to have chosen tubal ligation. In contrast to the Australian-born, no Southern European husband had been sterilized. Although vasectomy is a technically easier operation to perform than tubal ligation, Australian wives were more likely than their husbands to have accepted surgical sterilization. The proportion of sterilizations among the Australian-born was considerably higher than that reported by Caldwell et al. (1973) for women of a similar age in the 1971 Melbourne study. But a follow-up of the Melbourne study in 1977 (Young and Ware, 1979) produced results that compare favorably with the rates of sterilization observed in the Sydney sample. Similar proportions of Australian women under age 40 were sterilized and more wives than husbands accepted sterilization. In the Sydney interviews, fear of becoming pregnant again and the long-term side effects of using the pill were prominent reasons for women to undergo tubal ligation. The finding that more Australian women were sterilized than their husbands supports a general impression I have that Australian males still regard contraception as the wife's concern.

Among the Greek women, the pill and the traditional method of withdrawal were the major methods. Ironically, Greeks who were the most frequent users of withdrawal, a method of questionable reliability, were also among those who wanted small families. Ware (1974) reported similar findings and suggested that Greek immigrants use this "crude" method of birth control with remarkable success in limiting their family size owing to their ardent desire to have well-educated children. In the Sydney survey, 88 percent of Greek parents expected a son to attend university, compared with 38 percent of Australians and 55 percent of Italians.

Interviews with Italian women revealed that for them the pill was almost synonymous with contraception. The high proportion of Italian and Australian Catholic women who had adopted oral contraception is indicative of the extent to which Catholic parents in Sydney desire an effective method of birth control, despite the teachings of the Church.

STRUCTURED MEASURES OF ATTITUDES TOWARD HAVING CHILDREN

Although open-ended questions in the interview elicited information on the personally salient values and costs of children and changes in those values with family formation, they were of limited use in determining the amount of variance explained by value-of-children variables in measures of family size and attitudes toward the use of birth control. Another disadvantage of open-ended questions is that respondents may have difficulty in verbalizing their feelings about having children, or forget to mention prominent benefits and costs at the time of the interview. The purpose of using a series of Likert-type attitude statements was to obtain measures of a wide range of values and costs often associated with children and to use ratings of these items to develop social-psychological VOC indices to predict family-size intentions and attitudes toward the use of birth control.

The structured list of 63 attitude statements was developed from a list used in Phase I of the Value of Children Study (Arnold et al., 1975). In preparation for the Sydney survey, I conducted three series of pilot interviews in Canberra during 1976. From the responses gained to open-ended questions in the first two pilot studies, I developed a list of 128 attitude statements. This list included items about the pleasures of watching children develop, the fun of playing with them, and emotional concerns over rearing and disciplining children—concerns that Bulatao (1975) and Arnold and Fawcett (1975) believed were insufficiently emphasized in the previous list. After exploratory factor analyses and item analyses, I reduced the list of 128 items to 63 attitude statements and used them in the third pilot study and the Sydney survey. The statements were rated by respondents from 1 (strongly disagree) to 7 (strongly agree).

These attitude items provided a more structured method of evaluating the similarities and differences across cultures of respondents' attitudes toward children and parenthood. Whereas Australians used the full range of the seven-point scale, Southern Europeans tended to concentrate upon the positive ratings. As with the open-ended questions, immigrant parents found it difficult to recognize negative aspects of having children. Thirty-five percent of Australian mean scores on the 63 items consisted of positive ratings of 5 or above; in contrast, 75 percent of Greek and 65 percent of Italian mean scores were positive.

To maximize the possibility of obtaining factors that would predict family-size intentions and attitudes toward the use of birth control, I conducted separate factor analyses of the 63 items for Australian, Greek, and Italian respondents. As both varimax and oblimin rotations yielded similar patterns of items, the discussion that follows is based on the varimax solutions. In interpreting the factors, I rejected attitude statements with low correlations ($< .30$) or loadings split highly between two or more factors.

The varimax solution for Australians is presented in Table A1. Eight factors or indices were extracted and labeled as role fulfillment, emotional and lost-opportunity costs, pleasure in the child's development, general childrearing concerns, continuity of traditions, personal development of the parent, parenthood as a natural role in life, and a need for community acceptance. The eight factors explained 42 percent of the total variance. For Greeks, the varimax solution provided seven factors that explained 53 percent of the variance. The factor loadings are presented in Table A2. The seven clusters were interpreted as purpose in life, economic costs, childrearing satisfactions, lost opportunities, being needed, emotional strain, and general childrearing concerns. For Italians, the seven factors that accounted for 51 percent of the variance are shown in Table A3. I labeled the clusters as emotional and lost-opportunity costs, continuity and old-age support, role fulfillment, stability in life, the role of marriage, concerns over the growth of children, and parenthood as a natural role in life. Three factors in the Australian and Italian samples were assigned similar labels.

To evaluate the predictive potential of selected sociodemographic and economic variables and the social-psychological VOC indices developed from the factor analyses, I conducted a series of multiple regressions on the scores of husbands and wives in each ethnic group. The dependent variables were present family size, number of children wanted, and attitudes toward the use of birth control. The attitudinal measure was a rating from 1 (strongly approve) to 4 (strongly disapprove) of the use of birth control to prevent a pregnancy. Only wives were asked to give this rating.

The standardized regression coefficients and the amount of variance explained by the demographic, economic, and social-psychological sets of predictors are presented for Australians in Table 12.

The R^2 for each sex is the result of individual variables being entered into the equation stepwise. The total R^2 is the result of the sociodemographic variables being entered first, followed by the economic and social-psychological indices. Husbands were not questioned about the length of the marriage, and as a result the R^2 for husbands on the sociodemographic variables tends to be lower than for wives.

Examining the relative effects of the three sets of variables on the family-size and birth control measures for Australians shows the sociodemographic and economic variables to be stronger predictors than the social-psychological VOC indices. Among the sociodemographic factors, age was an important determinant of family size and the number of children wanted by Australian husbands and wives. Years of mar-

TABLE 12 Standardized regression coefficients (betas) and proportion of variance explained (R^2) for Australian husbands and wives

	Dependent variables				
	Present family size		Number of children wanted		Attitudes toward birth control
Predictors	Men	Women	Men	Women	(Women only)
SOCIODEMOGRAPHIC					
Age	.49†	.22*	.32†	.13	.23*
Size of family of origin	.08	.16*	.06	.27†	.21†
Years at school	.07	.10	.09	.16*	-.16*
Length of marriage	u	.43†	u	.26*	.01
R^2	.23	.37	.10	.17	.14
ECONOMIC					
Number of children perceived as economic burden	.27†	.27†	.35†	.32†	.19*
Attitude toward housing	.33†	.20*	.20*	.14	.06
Husband's income	.18*	.19	.01	.03	.01
Attitude toward economic situation	.13	.26†	.21*	.09	.16
R^2	.21	.17	.16	.11	.05
SOCIAL-PSYCHOLOGICAL					
Role fulfillment	.21*	.13	.11	.07	.09
Emotional and opportunity costs	-.13	-.06	-.17	-.09	-.05
Pleasure of child's development	-.04	.03	-.03	.09	.09
General childrearing concerns	.15	.18*	.15	.12	-.18*
Continuity	-.06	.04	.04	.00	-.12
Personal development	-.01	-.07	.03	.05	.08
Natural role in life	-.03	-.07	.06	-.01	.23†
Community acceptance	-.00	-.01	-.03	.03	.03
R^2	.06	.06	.07	.05	.13
Total R^2	.44	.50	.30	.29	.29

* Significant at .05 level.

† Significant at .01 level.

u—unavailable.

riage were also an important determinant, women married longer having and expecting larger families than other women. The attitudinal measure indicated that younger, more educated wives from smaller families were more likely than others to express positive attitudes toward the use of birth control.

Among the economic indices, the number of children perceived as an economic burden was a major determinant of the family-size measures and attitudes toward birth control. Husbands with higher incomes had larger families, and having a positive attitude toward present housing situation was a significant positive predictor of family size.

Although in general the social-psychological indices were the weakest predictors of family size and the number of children wanted, the R^2 for attitude toward birth control was equivalent to the variance explained by sociodemographic measures and higher than the R^2 obtained for economic factors. Men who had larger families scored higher on the role fulfillment benefits of having children than men with smaller families. Wives with larger families scored higher on the index of childrearing concerns, and were more likely than other women to approve of contraception. But wives who perceived motherhood to be a natural role in life disapproved of contraception.

In the regression analyses for Greek respondents (Table 13), again age and length of marriage proved to be strong predictors. For husbands, age bore a significant positive relationship to present family size. Younger wives wanted more children than did older wives, a finding that confirms previous open-ended evidence on the social significance of children to Greek couples. It is possible, however, that this desire by younger women for more children will alter as they become aware of the community norm favoring a small, well-educated family. Education of wives bore a significant negative relationship to present family size, and more educated women held a positive attitude toward the use of birth control. As in Table 12 for the Australians, the number of children perceived by Greek respondents to be an economic burden bore a positive relationship to the measures of family size. Again a more positive attitude toward present housing was held by parents who had or wanted larger numbers of children.

In contrast to the Australian results, the social-psychological VOC indices for Greeks added substantial explanatory power to the prediction of family size and family planning attitudes. Greek husbands who both had and wanted larger families were less concerned than others about being needed through having children or about childrearing problems. An unexpected finding was that wives who had a favorable

TABLE 13 Standardized regression coefficients (betas) and proportion of variance explained (R^2) for Greek husbands and wives

	Dependent variables				
	Present family size		Number of children wanted		Attitudes toward birth control
Predictors	Men	Women	Men	Women	(Women only)
SOCIODEMOGRAPHIC					
Age	.34†	.06	.10	−.37*	−.06
Size of family of origin	.10	−.15	.23*	−.01	.06
Years at school	.05	−.21*	.16	−.07	−.28*
Length of marriage	u	.28*	u	.53†	.05
Years in Australia	.04	.10	−.03	.07	−.01
R^2	.14	.21	.07	.14	.09
ECONOMIC					
Number of children perceived as economic burden	.25*	.35†	.17	.38†	−.02
Attitude toward housing	.20	.11	.26*	.18	.11
Husband's income	.13	.11	−.01	.05	.02
Attitude toward economic situation	−.13	.01	−.16	.02	.16
R^2	.12	.15	.10	.17	.05
SOCIAL-PSYCHOLOGICAL					
Purpose in life	.25	.16	.29*	.07	.22
Economic costs	−.06	.08	.08	.15	.29†
Childrearing satisfactions	.03	−.06	.05	−.04	−.24
Lost opportunities	−.07	−.10	−.07	−.11	−.13
Being needed	−.24*	−.21	−.31†	−.13	.11
Emotional strain	.12	.04	−.09	.05	.13
General childrearing concerns	−.23*	−.02	−.35†	.00	−.09
R^2	.10	.05	.20	.04	.17
Total R^2	.29	.36	.30	.31	.25

* Significant at .05 level.

† Significant at .01 level.

u–unavailable.

attitude toward birth control were not particularly concerned about the economic burden of having children. Perhaps they felt that birth control had given them such control over their fertility that they need not worry about the economic costs of rearing a family or having more children than they could afford. Indeed, although they were more likely than Australian or Italian women to use more traditional methods such as withdrawal, this report and others (Ware, 1975) suggest that they will reach a family-size target below that of most other sociocultural groups.

The largest total R^2 was obtained for the Italian parents (Table 14). As in the previous analyses, the sociodemographic variables of age and length of marriage bore significant positive relationships to the family-size measures. Relationships were all in the expected direction, and the strength of the relationships was somewhat more impressive than for Australian and Greek respondents. As for the economic measures, again parents who thought that a small family was expensive to raise tended to have and want fewer children than other parents. Males with a positive attitude to housing had larger families. The regression analyses revealed among Italians a larger number of significant relationships between the social-psychological variables and the family-size measures than in the other two ethnic groups. Italian respondents who had and wanted larger families emphasized more their sense of role fulfillment in having children, which included feelings of achievement, satisfaction, and sex identity (see Table A3). Although emphasizing these benefits, they attached less importance to fulfilling a natural desire to become a parent. Respondents having and wanting large families scored lower than others on indices of children causing emotional costs and lost opportunities.

Except for size of the family of origin, there were no significant relationships with the birth control measure. In the amount of variance explained, the social-psychological variables were again more substantial predictors of birth control attitudes than the sociodemographic or economic measures.

In summary, the open-ended questions analyzed previously highlighted the role of social-psychological, economic, and social influences upon having children. In the regression analyses, however, the economic and sociodemographic variables in all ethnic groups provided the greatest explanation of the variance in actual family size and number of children wanted. For the Italian and Greek samples, the social-psychological measures did substantially improve the prediction of actual or wanted family size; for Australians, they provided only a mea-

TABLE 10 Number of children wanted in rank order, by sex of respondents, and percentage of respondents wanting specific number of children, by ethnicity, socioeconomic status, and religion

Mean number wanted		Percentage of respondents wanting specific number							
Husbands	Wives	1	2	3	≥4	Ethnicity	SES	Religion	*N*
3.9	4.3	0	16	11	73	Australian	Professional	Catholic	38
3.5	3.1	0	20	50	30	Australian	Skilled	Catholic	30
3.6	3.0	0	25	50	25	Australian	Unskilled	Catholic	24
3.3	3.0	3	32	33	32	Italian	Unskilled	Catholic	60
3.0	3.2	2	36	33	29	Italian	Skilled	Catholic	83
3.0	3.1	3	28	40	29	Australian	Skilled	Protestant or none	72
3.1	2.9	3	35	36	26	Australian	Unskilled	Protestant or none	72
2.9	2.9	0	50	35	15	Italian	Professional	Catholic	60
2.7	2.7	0	55	25	20	Australian	Professional	Protestant or none	69
2.7	2.7	1	51	28	20	Greek	Unskilled	Greek Orthodox	98
2.6	2.6	4	51	31	14	Greek	Skilled	Greek Orthodox	51
2.5	2.5	8	53	27	12	Greek	Professional	Greek Orthodox	60

TABLE 14 Standardized regression coefficients (betas) and proportion of variance explained (R^2) for Italian husbands and wives

	Dependent variables				
	Present family size		Number of children wanted		Attitudes toward birth control
Predictors	Men	Women	Men	Women	(Women only)
SOCIODEMOGRAPHIC					
Age	.38†	.16	.15	−.08	−.04
Size of family of origin	.21*	.27†	.18	.20	.24*
Years at school	−.02	.04	−.02	.06	−.04
Length of marriage	u	.46†	u	.38*	.13
Years in Australia	−.03	−.04	−.13	−.15	.05
R^2	.18	.41	.05	.14	.08
ECONOMIC					
Number of children perceived as economic burden	.43†	.44†	.44†	.46†	.18
Attitude to housing	.21*	.18	.08	.03	.04
Husband's income	.02	−.03	−.01	−.10	−.04
Attitude toward economic situation	−.01	−.10	−.01	−.05	−.01
R^2	.20	.22	.19	.20	.03
SOCIAL-PSYCHOLOGICAL					
Emotional and opportunity costs	−.22*	−.17	−.35†	−.26*	−.02
Continuity and old-age support	−.08	−.24	−.15	−.25	.18
Role fulfillment	.32*	.37*	.40*	.41*	.09
Stability in life	−.11	−.03	.05	.08	−.04
The role of marriage	.18	.29*	.14	.24*	.19
Concerns over the growth of children	−.04	.09	−.03	.04	−.02
Natural role in life	−.27*	−.26*	−.26*	−.17	−.23
R^2	.13	.18	.21	.18	.09
Total R^2	.45	.62	.34	.42	.15

* Significant at .05 level.
† Significant at .01 level.
u—unavailable.

ger addition to the total variance explained. On the other hand, in all ethnic groups the social-psychological predictors by themselves explained more of the variance in the birth control measure than either of the other sets of predictor variables. Arnold and Fawcett (1975) reported similar findings from Phase I of the Value of Children Study, in which the social-psychological VOC predictors improved the total explanatory power of family size measures and appeared to be more potent than the traditionally important economic and sociodemographic variables in explaining the attitudes of respondents to the use of birth control.

The question that appears to follow from these findings, therefore, is how to increase further the predictive power of measures of family size and attitudes toward birth control. The varied performance of the social-psychological factors implies that further improvements must be made in structured measures of the values and costs of having children. My major criticism of the attitude items is that they can be more or less important to parents at different stages of family formation. Previous discussion in this paper of attitudes toward different numbers of children suggests that general attitude statements do not tap feelings experienced by parents at different stages of family formation. For example, the desire for a son or a daughter or for another child as a companion for the first will possibly be more salient to parents with one child than to those with two children who have achieved their desired family. Attitudes toward having children need to be measured when parents are actually involved in childbearing decisions. Although it has proved useful to interview women under age 40 with children, more research needs to be conducted on couples in their 20s who are still making childbearing decisions. In addition, there is evidence suggesting that more specific measures of attitude toward the act (e.g., Davidson and Jaccard, 1975) are needed as they might be better predictors of family-size and family planning intentions than the traditional measures of attitude toward the object.

As Fawcett (1976) has noted, an integration of the conceptual approaches and measures being used by economists, sociologists, anthropologists, and psychologists will ultimately contribute to our understanding of why couples want children, how they weigh the benefits and costs, and what factors influence them to stop childbearing. It is hoped that participation by researchers in these disciplines at such events as workshops and seminars will result in the more successful evaluation of the potential influence of values and costs of having children upon birth control attitudes and family formation decisions.

SPECULATIONS ABOUT THE INCREASING ACCEPTANCE OF THE TWO-CHILD FAMILY

At the beginning of this paper, I expressed the hope that an evaluation of the values and costs of children would add substantial explanation to the research question of why young parents in Australia today are preferring the two- and three-child family over larger numbers of children. The reports of the National Population Inquiry and the Melbourne Fertility Study have indicated that there is no single explanation for declining fertility. Most explanations, whether emphasizing the increased use of more effective birth control methods, the expectancy of a high standard of living, or the desire for women to return to the workforce, have implied a basic change in attitudes held by parents and nonparents. Except for this survey, however, few efforts have been made to determine what is a core component of this attitude change—attitudes to having children. Because of the nature of the sample, the Sydney survey cannot be used to make generalizations about the total population of Sydney or Australia. Nevertheless, the interviews provided measures of the values and costs of children and the personal aspirations of a fair proportion of couples living in Sydney. In this final section, I will offer some suggestions, based on their responses and my knowledge of Australian society, for explaining why Australia's younger parents expect fewer children than any fertility cohort before them.

In examining the motives for wanting children, I found the most interesting results to be the range of satisfactions in having children and changes in the value of children at different stages of family formation. Indeed, fertility decision-making must be seen as a sequential process (see Namboodiri, 1974; Bulatao, 1979b), with different value and cost hierarchies attached to different parities. Among Southern Europeans, there was little question that being married meant having children. Moreover, because children were seen as completing the marriage, bringing parents closer together, and establishing the couple as a family in the Greek and Italian communities, Southern European couples could find few rational reasons for delaying the first birth. In contrast, few Australians mentioned any advantages to the marriage in having children as soon as possible, and if given the opportunity again, they would have been more likely to delay the first birth to the third year of the marriage or later. Unlike the immigrant parents, they did not perceive any pressures from family and friends to have children immediately. Rather, they had been warned of the financial, social, and emotional disadvantages of an unplanned birth in the initial years of the marriage by other couples who had made that "mistake." The need for working wives to establish their careers, the desire of couples to purchase a home, and the wish of young husbands and wives to know more about each other are leading Australian couples to postpone family formation. One outcome of this deferment is that couples may have fewer children when they do begin childbearing because they have fewer remaining fecund years and also because, as some of the Sydney women mentioned, childbirth entails a greater risk to the mother after age 30.

The National Population Inquiry (1978) reported that the two- or three-child family is being preferred to larger families. On the other hand, among the younger fertility cohorts there is little evidence of an increased acceptance of voluntary childlessness or the only child. Though respondents acknowledged the emotional, economic, and social costs of having children, no respondent would have foregone having children. Indeed, some couples were bewildered that anyone could marry but decide not to have children. Moreover, while most parents held indifferent attitudes toward the voluntary childless, some strongly disapproved, using phrases such as "child haters" or suggesting that the voluntary childless were emotionally and mentally deranged. The most commonly cited reason for not wanting a single child was that the single child tended to be lonely and spoiled. The belief that an only child is lonely appeared to be based on a stereotype, rarely on personal experience as an only child or in having an only child as a friend. Parents expressed fears that the personality development of the child would suffer from lack of companionship and stimulation from siblings. Most parents thought that it was difficult enough to raise well-adjusted children without the additional disadvantage in having an only child who would be, almost by definition, lonely, spoiled, and different from other children.

The first birth led to major changes in the lives of parents. Prior to the birth, all Australian women sampled and the majority of Greek and Italian wives had held jobs. With the first child, the most dramatic change was a more restrictive life style based on a single income. The potential to save money was markedly reduced, while payments on a home, car, or other possessions were now to be met by one income. Some parents found it difficult to meet the emotional and time demands of a new child. "Why does the child cry so much? Is he sick? Am I doing the right thing? What has happened that the child has stopped crying?" Discussion in the media of the significant level of "cot deaths" did little to allay such concerns. Most answers to these concerns appeared to come with experience. That women could vividly recall the physical exhaustion and emotional anguish they experienced during the initial months of childcare, however, even ten years after the birth, suggests that the feelings of incompetence and inexperience with the first child are prominent reasons for couples to reevaluate their family-size decisions. In addition, that women were more likely to focus upon such feelings in interviews and general discussions is further evidence (Richards, 1978) that most fathers and mothers perceive the father's role to be more important in the later, not earlier, years of a child's life.

With the second and third births, fewer parents mentioned various emotional and childrearing satisfactions in having children. A "curiosity motive" for having children, to discover what a child from their union would look like, had been fulfilled with the first child. In having a boy and a girl, parents believed they would experience the benefits of interacting with children of their own and the opposite sex. Having a child of the same sex tapped into a somewhat different value or need domain. For husbands, these values focused upon companionship, teaching a son things the father knew or had experienced, and providing a continuation of the father's name and protection of the family. Similarly, wives emphasized companionship, but they were more interested in opportunities to talk to a daughter and be involved in the development of her femininity. There was also possibly a socially sanctioned crossover of needs, in that boys were described as being more affectionate toward mothers, and girls more affectionate toward fathers–at least in open-ended responses. However, the balanced sex preference shown by the Coombs scale for all parents except Greek males suggests that the different values attached to sons and daughters may not have been important determinants of the family-size decisions of the Sydney respondents. Indeed, a balanced sex preference is seen to encourage the acceptance of smaller families (Williamson, 1976).

Whether in reference to the first, second, or third child, all parents in the three ethnic groups mentioned economic costs among the major disadvantages of having children. Groups who played down economic concerns were Australian respondents in the professional status groups, and Southern Europeans who insisted that there were no disadvantages in having children. But even these parents said that three or four children would be economically difficult to raise. Parents most likely to emphasize the economic burden of children were immigrant respondents in the skilled and unskilled occupational groups. In view of the financial, emotional, and social difficulties these non-English-speaking couples face in adapting to Australian life, the salience of economic concerns is not surprising.

By having a two- or three-child family rather than a larger one, many parents believed that they were creating a life style and achieving a quality of childrearing better than any they had experienced as children or young adults. The impression I gained from the Sydney survey is that couples tended to justify their desire to limit family size on the basis of their children's rights and needs, as well as their own. Among the lifetime goals of Australian and Southern European couples were not only the desire to raise well-educated, "quality" children, but also to travel and own a modern home, the last to be achieved as quickly as possible. Among Australian women, there was also an expressed need to enter the workforce at a later stage of family formation and to be successful at an occupation outside the home. Once children were at school, they saw few reasons for staying at home. This view has become prevalent in Australia. As families have become smaller, and housekeeping has been released from heavy, repetitive chores, women at home are perceived as unfulfilled and isolated. It has even been suggested that a reverse in attitudes has occurred and women who decide to stay at home are now regarded as going against the norm (Ware, 1976). That 60 percent of Australian, 87 percent of Greek, and 44 percent of Italian working women in the Sydney sample indicated financial reasons as the prominent motive for working suggests that the wish to give "the best of everything" to their children still outweighed more self-oriented reasons; but it is also well recognized in Australian studies of the working mother (Harper and Richards, 1979) that financial reasons for working are more socially acceptable than reasons of personal fulfillment or gain, especially since most males and females in the Sydney interviews expected women to take prime responsibility for childrearing, particularly in the earlier years. Indeed, only recently have some Australian family researchers (Russell, 1979) examined families in which males have questioned this assumption and become deeply involved in childcare.

The availability of effective methods of contraception, together with greater tolerance toward abortion, has allowed parents in Sydney to decide when to begin and to complete childbearing. In particular, contraception has allowed Australian couples, and will possibly encourage younger Southern European couples, to delay the first birth to consolidate the material and emotional basis of the marriage. The decision to marry in Australian society is no longer in effect a decision

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to have the first child. Evidence from the present study and the 1977 Melbourne Fertility Survey also indicates that Catholic contraceptive use is converging with non-Catholic use; as a result the incidence of large families even among well-educated Catholics is likely to decline. The increased use of sterilization over the last six years is another indicator of the desire to achieve greater control over family size.

The value- and cost-of-children framework used in the Sydney study has provided some information on why Australian-born and immigrant parents want children and why most want to stop at two or three children. Suggestions that families are turning in on themselves (Ruzicka and Caldwell, 1977; Game and Pringle, 1979) or are recognizing alternative life styles (National Population Inquiry, 1978) become somewhat more meaningful with the evidence of the range of values and costs in having children.

Shortcomings raised previously in VOC studies (Fawcett, 1976; Arnold et al., 1975) again became obvious in the Sydney study. In particular, there is a need for attitude measures more specifically related to the stage of family formation; indices of perceived social pressure to have children; and attempts to examine and quantify such concepts as "quality childrearing," "perceived economic costs," and in particular "alternative sources of satisfaction to having children." Furthermore, VOC research has yet to study fully the actual processes of fertility decision-making; and although there are a number of economic (e.g., Easterlin, 1975) and social-psychological models (e.g., Namboodiri, 1974; Terhune, 1973), the benefits and costs of children, beyond contributions to a general understanding of fertility decisions (Bulatao, 1979b), have yet to be systematically incorporated into existing models or used to develop more detailed parity-specific decision-making frameworks.

The present study is perhaps unique in the Australian fertility literature both in its use of the value-of-children framework and its interviews with husbands and wives about the economic and noneconomic influences upon parents in a variety of ethnic and socioeconomic groups. It is an exploratory step which is to be followed by smaller-scale studies of young singles and couples. In the latter half of 1980, over one hundred voluntarily childless persons have been questioned about the values and costs of children, and about alternative sources of satisfaction to having children. Population studies in Australia and elsewhere, previously the realm of demographers and family planning workers, can only benefit from an increased involvement of psychologists and other social researchers concerned more with the individual couple, fertility motivations, and decision-making.

APPENDIX TABLES

TABLE A1 Australians: Factor structure after varimax rotation of attitude statements about having children

	Factor								
Statement	1	2	3	4	5	6	7	8	9
7 A girl becomes a woman only after she is a mother	**.73**	.07	-.03	-.05	-.11	.02	.01	-.01	-.11
21 A boy becomes a man only after he is a father	**.69**	.12	.05	.01	.06	-.03	-.03	-.07	-.09
35 Having children is the most important function in marriage	**.58**	-.04	.03	.13	.14	.27	.28	.07	.07
11 The really important things in life can be learned only from the experience of raising children	**.55**	-.05	.22	-.06	.13	.24	-.01	-.20	.04
26 In having children a person shows proof of their masculinity or femininity	**.51**	.04	.06	.03	.18	-.01	.10	.10	-.02
14 Having children is a sign of blessing on a marriage	**.47**	-.10	.15	.13	.11	.28	.19	-.01	-.16
46 The family with children is the only place in the modern world where a person can feel comfortable and happy	**.47**	-.04	.17	.08	.10	.33	.17	.02	.21
41 It is a person's duty to society to have children	**.44**	-.07	-.13	.11	.21	.14	.26	.17	.12
55 A person who has no children can never really be happy	**.42**	-.05	.22	-.02	.12	.13	.21	.16	.12
25 It is important to have children so that a person is not lonely in old age	**.40**	.08	-.00	.12	.27	.11	.17	.22	-.12
17 It is a person's religious duty to have children	**.35**	-.10	-.14	.14	.15	.14	.09	.13	.05

42	Raising children is a great physical strain on parents	-.01	**.62**	.12	.04	-.01	.00	-.01	.09	.12
24	Children are often difficult and annoying	-.15	**.58**	-.18	.09	.08	-.05	-.02	.09	-.05
54	Having children causes many disagreements and problems between husband and wife	-.00	**.55**	.11	.03	-.15	-.01	.05	.04	-.02
12	Always having children around is a great mental strain	.11	**.54**	-.01	-.06	-.01	.04	-.10	.11	.08
38	The noise and disorder of children continually gets on a parent's nerves	.05	**.53**	-.07	-.11	-.00	-.00	.21	-.06	-.06
22	Children limit you in what you want to do and where you want to go	-.07	**.53**	-.01	.10	.04	.05	-.19	.07	.38
16	When you have children you have to give up a lot of other things that you enjoy	-.07	**.52**	-.01	.10	.03	.05	-.19	.07	.38
19	The disciplining of children brings much anxiety to parents	.09	**.49**	.03	.14	.12	.02	.03	.07	-.10
45	A major strain of having children is that parents have less time for each other	-.06	**.46**	-.05	.15	-.04	.05	-.25	.10	.07
50	The misbehavior of children often creates a falling out between friends	-.05	**.39**	.26	.05	.08	-.04	.05	-.00	-.03
4	It is very difficult to plan your own activities when you have children	.05	**.36**	-.00	.25	.28	.00	-.19	-.02	.23
53	One of the nicest things about having children is watching their growth and development	.03	.13	**.55**	.19	.01	.01	-.05	.03	.02
52	It is always fun to play with children	.18	-.12	**.50**	.13	.10	.12	.21	-.12	.07
43	One of the best things about having children is the chance to educate and teach them	.08	.08	**.32**	-.07	.08	.14	.17	.05	.05

TABLE A1 *(continued)*

Statement	Factor 1	2	3	4	5	6	7	8	9
3 Educational expenses of children are a heavy financial burden	.12	.13	.08	**.50**	-.05	-.03	-.01	.04	.06
1 Having children forces most people to settle down and work hard for their family	.02	-.00	-.08	**.48**	.09	.12	.12	-.03	.11
2 A major concern of parents is the health of their children	.09	-.05	.13	**.64**	.09	-.03	.16	-.00	-.17
9 The responsibility of having children is often very heavy	-.06	.24	.05	**.42**	-.02	.10	-.14	.20	-.07
37 It is important to have children so that family traditions will live on	.33	.03	.15	.04	**.63**	.16	-.16	-.06	.00
18 It is important to have children to continue the family name	.28	-.07	.11	-.02	**.60**	-.04	.13	.02	.03
28 With almost no one else can you have such a strong bond of affection as with your children	.01	.07	-.02	-.09	.12	**.61**	.03	-.00	-.03
32 With almost no one else can you give and share as you can with children	.13	-.05	.08	.01	.01	**.54**	.03	.04	.12
34 Especially in having children, people are taught to be unselfish	.27	.01	-.10	.10	-.07	**.42**	.15	-.01	.02
58 It is only natural that a woman should want children	.20	-.01	.05	.06	.07	.15	**.66**	.00	.02
61 It is only natural that a man should want children	.19	.05	.09	-.00	.17	.13	**.63**	.14	.03
30 A young couple is not fully accepted in the community until they have children	-.03	.16	-.09	-.07	.04	-.06	-.18	**.57**	.02

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57 A person with children is looked up to in the community more than a person without children	.08	.10	-.02	.04	.01	-.03	.05	**.55**	.19

TABLE A2 Greeks: Factor structure after varimax rotation of attitude statements about having children

	Factor							
Statement	1	2	3	4	5	6	7	8
49 One of the highest purposes of life is to have children	**.76**	.04	.14	-.08	.07	.10	.10	-.16
48 Having children gives a person a special incentive to succeed in life	**.71**	.11	-.21	-.01	.00	.05	.11	-.33
44 Through having children a person can feel true completeness with life	**.66**	.14	.14	.09	-.02	-.09	.06	-.01
27 One of the most important benefits of children is their ability to improve a person's relationship with the person's own parents	**.63**	.13	.10	.17	.20	.07	-.06	-.31
54 It is difficult not to have children if all your friends have children	**.61**	.22	.22	.15	.25	-.05	.08	.06
35 Having children is the most important function in marriage	**.61**	.03	.19	-.04	-.01	-.08	.00	.14
18 It is important to have children to continue the family name	**.52**	.28	.10	.11	.16	-.13	.03	.39

TABLE A2 *(continued)*

Statement	Factor							
	1	2	3	4	5	6	7	8
60 Without having children there is little chance that you will mature into a responsible adult	**.52**	.01	.12	.12	.06	.07	-.03	.10
25 It is important to have children so that a person is not lonely in old age	**.49**	-.01	.27	.28	.03	-.03	-.03	.13
55 A person who has no children can never really be happy	**.49**	.10	.27	.09	.25	-.04	.04	.11
23 Having children makes a stronger bond between husband and wife	**.43**	-.05	.07	.15	.12	-.06	-.08	-.01
40 With a child a person can feel completely free to express his or her love and affection	**.38**	-.17	.18	.13	.07	.11	.01	.04
51 Raising children is a heavy financial burden	-.01	**.81**	-.08	.24	-.05	.09	.27	-.08
63 For most people it is inevitable to have children	-.13	**.78**	.02	.16	-.03	.07	.09	-.30
47 Children can provide economic support in one's old age	-.01	**.77**	.23	.04	-.10	.03	-.13	-.08
20 Medical expenses of children are a heavy financial burden	.05	**.69**	-.11	.19	.07	.14	.13	.03
3 Educational expenses of children are a heavy financial burden	.07	**.62**	.01	.07	-.02	.11	.10	.01
17 It is a person's religious duty to have children	.21	**.62**	.16	-.07	.34	.18	-.05	.01
21 A boy becomes a man only after he is a father	.11	**.53**	-.07	.06	.03	.21	-.01	.20
32 With almost no one else can you give and share as you can with children	.39	-.00	**.61**	-.01	.20	.14	.13	-.17
43 One of the best things about having children is the chance to educate and teach them	.23	.22	**.55**	-.07	-.09	-.01	-.00	-.09

28	With almost no one else can you have such a strong bond of affection as with your children	.17	.05	**.49**	.04	.20	.17	-.07	-.09
10	All the efforts a person makes for his or her children are worthwhile in the long run	.05	.02	**.48**	.05	.03	-.03	-.04	.08
8	A person who has been a good parent can feel completely satisfied with his or her achievements in life	.02	.24	**.45**	.19	.20	.06	-.23	.19
11	The really important things in life can be learned only from the experience of raising children	.21	.23	**.40**	.10	.15	.07	.05	-.00
53	One of the nicest things about having children is watching their growth and development	.15	-.07	**.33**	-.01	.14	-.12	.00	-.08
22	Children limit you in what you want to do and where you want to go	-.04	.24	.07	**.62**	-.04	.30	.13	.09
4	It is very difficult to plan your own activities when you have children	.06	.17	.04	**.58**	-.03	.07	.10	-.00
62	Having children restricts you in where you want to live	.14	.12	-.03	**.58**	.11	.17	.22	-.10
52	It is always fun to play with children	.29	.10	.11	.01	**.69**	-.07	.03	.00
13	Just the feeling a parent gets of being needed is enough to make having children worthwhile	.14	-.01	.13	.08	**.47**	-.09	-.15	.02
38	The noise and disorder of children continually gets on a parent's nerves	-.11	.27	.04	.16	-.02	**.67**	.04	-.06
39	Children bring out our lack of patience	.01	.14	.08	.10	.02	**.62**	-.10	-.12
12	Always having children around is a great mental strain	-.06	.18	.02	.14	-.10	**.46**	.01	.09
15	The proper growth and development of children is a major worry to parents	.10	.04	.20	.21	-.02	.05	**.73**	-.02
9	The responsibility of having children is often very heavy	.11	.16	-.02	.29	-.02	.06	**.63**	.06

TABLE A3 Italians: Factor structure after varimax rotation of attitude statements about having children

Statement	Factor 1	2	3	4	5	6	7	8
24 Children are often difficult and annoying	**.75**	.01	-.07	.03	.07	.07	-.05	.09
12 Always having children around is a great mental strain	**.69**	.03	.05	-.05	-.06	.18	.04	.17
51 Raising children is a heavy financial burden	**.67**	.00	.02	.18	-.08	.09	.07	.10
38 The noise and disorder of children continually gets on a parent's nerves	**.62**	.23	.05	-.04	.13	-.10	.03	-.03
4 It is very difficult to plan your own activities when you have children	**.61**	-.07	.04	-.13	.05	.22	.16	-.13
16 When you have children you have to give up a lot of other things that you enjoy	**.53**	.14	-.03	.22	.15	.27	.11	-.03
42 Raising children is a great physical strain on parents	**.53**	.22	.04	.12	-.17	.14	-.11	.04
39 Children bring out our lack of patience	**.47**	.27	-.12	.04	.13	-.14	-.15	.03
45 A major strain of having children is that parents have less time for each other	**.47**	-.03	-.02	.19	.03	-.08	.10	.14
19 The disciplining of children brings much anxiety to parents	**.38**	.23	-.12	-.09	.15	.21	-.01	-.26
18 It is important to have children to continue the family name	.19	**.81**	.13	-.23	.06	.01	.09	.02
29 A person can feel that part of him or her lives on after death if he or she has children	.09	**.77**	.02	.01	-.14	.15	-.13	.28
37 It is important to have children so that family traditions will live on	.19	**.76**	-.01	-.02	.17	-.00	.01	.09
25 It is important to have children so that a person is not lonely in old age	.08	**.70**	.09	.08	.11	-.11	-.08	.09

6	It is important to have at least one boy in the family	.25	**.59**	.30	-.24	.12	.09	.02	-.03
47	Children can provide economic support in one's old age	-.03	**.49**	.12	.31	.01	-.17	-.07	.11
32	With almost no one else can you give and share as you can with children	-.01	**.43**	.09	.13	.14	.15	.14	.20
7	A girl becomes a woman only after she is a mother	.13	.16	**.60**	.05	.28	-.17	.08	.08
8	A person who has been a good parent can feel completely satisfied with his or her achievements in life	-.12	.04	**.59**	-.03	.33	.10	.13	-.11
11	The really important things in life can be learned only from the experience of raising children	-.19	.07	**.57**	.33	.20	.09	.18	-.01
14	Having children is a sign of blessing on a marriage	-.12	.20	**.54**	-.01	.26	-.13	.14	.03
26	In having children a person shows proof of their masculinity or femininity	.29	.22	**.47**	.08	.22	-.08	.26	.17
21	A boy becomes a man only after he is a father	.28	-.01	**.46**	.02	.33	-.16	.27	.19
62	Having children restricts you in where you want to live	.08	.01	.08	**.47**	-.01	.02	.00	-.05
48	Having children gives a person a special incentive to succeed in life	-.08	.24	.21	**.42**	.21	-.03	.12	-.01
40	With a child a person can feel completely free to express his or her love and affection	-.04	.17	.10	**.29**	.24	.10	.05	-.04
49	One of the highest purposes of life is to have children	-.02	.12	.19	.04	**.76**	-.04	.21	.05
35	Having children is the most important function in marriage	.03	-.01	.23	-.08	**.63**	-.04	.24	.16
36	Life would be pretty dull without children	-.04	.09	.06	.02	**.56**	.11	.09	.00

TABLE A3 *(continued)*

Statement	Factor 1	2	3	4	5	6	7	8
23 Having children makes a stronger bond between husband and wife	.06	.15	-.00	.03	**.49**	.16	-.09	.08
1 Having children forces most people to settle down and work hard for their family	.17	-.09	.07	.03	.04	**.51**	-.03	.09
53 One of the nicest things about having children is watching their growth and development	.07	.04	-.08	.10	.13	**.43**	.22	.01
15 The proper growth and development of children is a major worry to parents	.16	.00	-.10	-.07	.05	**.36**	.17	-.02
2 A major concern of parents is the health of their children	.12	.15	-.04	-.14	.02	**.31**	-.16	.22
61 It is only natural that a man should want children	.03	.12	.19	-.05	.28	.04	**.60**	.09
58 It is only natural that a woman should want children	.08	.31	.12	.00	.14	.09	**.60**	-.19
63 For most people it is inevitable to have children	.21	.12	.14	-.01	.25	.02	**.51**	-.06

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Urbanization, education, and marriage patterns: four cases from Asia

Peter C. Smith
and Mehtab S. Karim

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PREFACE

Most of the initial work on this paper was done in July 1975 and July 1976 while Mehtab S. Karim was an Intern of the East-West Population Institute. An earlier version was presented at the Conference on Comparative Fertility Transition in Asia, Tokyo, Japan, March 27–31, 1978. Dee Chapon provided much of the computer programming and statistical assistance.

The KIRBS survey was made available by that organization through Dr. James Palmore, who also made available the West Malaysia Family Survey data. The Pakistan National Impact Survey data were made available to the second author, who participated in the work of the survey. The Philippine National Demographic Survey data were provided by Dr. Mercedes B. Concepcion of the Population Institute, University of the Philippines.

ABSTRACT A transition in marriage patterns is under way throughout Asia. This paper examines nuptiality transitions as they are occurring in four culturally contrasting Asian societies. Individual-level survey data from Korea, Malaysia, Pakistan, and the Philippines are compared with areal census data from these countries, and the strengths and shortcomings of each type of data and each mode of analysis are indicated. Geographic differentials in nuptiality within the countries and a pattern of nuptiality decline which is nearly ubiquitous across areas are documented. Two kinds of explanatory variables are examined in detail and shown to be important: variables related to urbanization, urban exposure, and urban residence; and variables related to the level and consequences of schooling.

It is common practice to compare the 19th century European demographic transition with contemporary events in Asia. There are at least surface similarities between these regions regarding the character and tempo of their fertility and mortality changes. But in the realm of marriage behavior similarities between European and Asian transitions are minimal and the European experience is of interest mainly as a sharp contrast to what is occurring in Asian societies today. The demographic transition in Europe was associated in most countries with stable or declining mean ages at marriage, starting from regimes of late marriage before the onset of transition (Hajnal, 1965; Coale, 1969). Throughout Asia the reverse is true.

The Asian marriage transition has been described and some of its principal social origins identified (Agarwala, 1969; Blayo, 1978; Goode, 1963; Luhadia et al., 1972; P.C. Smith, 1980a); in addition, some attempt has been made to assess, comparatively, the substantial fertility impact of the nuptiality transition (Cho and Retherford, 1973; Lee and Chao, 1973; Caldwell et al., 1980; P.C. Smith, 1980b; Population Information Program, 1979; International Center for Research on Women, 1979). On the whole, however, Asian marriage patterns have been examined mainly by researchers interested in a single country or in the analysis of a particular set of data.[1] The literature contains little cross-national comparison, and even less often are results from multiple data sources compared.

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[1] The literature on individual countries is voluminous. Among the contributions we have found especially useful are Agarwala (1957) on India; Barclay (1954) on Taiwan; Chang (1974) on Singapore; Fernando (1975) on Sri Lanka; McDonald (1979), McDonald and Abdurahman (1974), and Geertz (1961) on

This paper reports on an analysis of the nuptiality transitions in four culturally contrasting Asian societies. Individual-level survey data from the Republic of Korea, West Malaysia (excluding Sabah and Sarawak), Pakistan (formerly West Pakistan), and the Philippines—hereafter referred to as Korea, Malaysia, Pakistan, and the Philippines—are compared and juxtaposed with areal census data from these four countries, and the strengths and shortcomings of each approach to nuptiality analysis are indicated. As in most studies of this kind, we have elected to sacrifice a degree of depth in our analysis of the individual countries in order to achieve comparability across all of them with respect to a few key variables. Special attention is paid here to the major social changes encompassed by two processes: urbanization, and educational development. The effects of these processes on nuptiality are compared across the four societies and with the course of social change in industrializing Europe.

These two social transformations are of obvious significance in Asian development, and they are of special interest to demographers because the course of each has differed significantly from the historical European experience. This raises the prospect that their interactions with marriage and fertility patterns may differ from the European development process as well.

Urbanization has progressed slowly in Asia relative to the European experience in the 19th century, and Asia's current level of urbanization is low among developing regions (Davis, 1975). Both the low level and the slow rate of urbanization derive mainly from the fact that Asia's massive rural population has grown so rapidly. Another significant factor in the slow pace of urbanization is the capital intensive character of much urban investment in the post war period. These differences in the urbanization process combined with the distinct character of rural social structure in much of Asia, as compared with European societies, to create very different implications for rural-urban relations and rural-urban differentials, including nuptiality differentials.

Indonesia; Nash and Nash (1963) on Burma; and Salaff (1972) on Hong Kong. The literature on the four countries under study here includes, among others: Afzal (1973), Alam (1968), Iftikhar and Afzal (1975), Korson (1965), and Sadiq (1965) on Pakistan; Caldwell (1963), Palmore et al. (1970), and W. Smith (1961) on Malaysia; Flores (1974), Murray (1972), Scheans (1965), and P.C. Smith (1975) on the Philippines; and Kim (1972) on the Republic of Korea.

In sharp contrast, the Asian educational transformation has progressed well in advance of other aspects of the development process. The stress on education has been a consequence of government action in most countries, encouraged by an ideological consensus over the desirability of education reaching both sexes and even the lowest social strata. This consensus over universal schooling, taken for granted today, was largely absent in 19th century Europe. In general, national educational systems in Asia have been more egalitarian, more secular, and have had even more ambitious learning goals than corresponding systems in 19th century Europe (Resnick and Resnick, 1977). Their accomplishments have been uneven but impressive nevertheless.

Historical differences like these raise questions about the impact of the two processes on marriage patterns. Indeed, research to date has revealed important differences with the European experience, and in general there is a good deal of ambivalence in both the empirical and theoretical literature over the direction and strength of the effects of both education and urbanization on marriage and fertility, particularly over the institutional and behavioral linkages between each of these processes and demographic change.

Marriage is most often viewed as a supply factor in some variant of a household decision model of fertility, along with the biological capacity to reproduce (Easterlin, 1978). In these fertility models the determinants of marriage timing are not usually considered in any detail, though there have been a few applications of the framework to marriage decisions (Becker, 1973–74; Cochrane, 1979).

Within such a framework, Cochrane suggests several effects of education on marriage timing. She distinguishes the direct effect of time spent in school (not likely to be important unless marriage occurs quite early), a demographic effect via the size of the pool of eligibles, and an effect via the opportunity costs of marriage versus remaining single. The last two effects are thought to be opposite in direction for males and females because higher educational attainment only increases the pool of eligibles for men while reducing it for women (given prevailing hypergamous systems of mate selection); and a high earnings potential increases a male's financial ability to marry with virtually no opportunity costs, while a higher earnings potential for a female also increases her opportunity costs of marrying (given role conflicts between work and staying at home). The economic perspective leads to the prediction that high-education males will marry earlier than low-education males, with the opposite prediction for females. The results presented in this paper conform to the prediction for females, but with the available data we cannot examine education's effect on male marriage timing.

In contrast, the typical sociological framework reflects greater interest in the role of changing institutional arrangements in LDCs in motivating later marriage for both sexes. In particular, education is often linked to changes in family organization and thus to marriage and fertility behavior (e.g., Caldwell, 1980). And, some important global differences in marriage timing are said to reflect broad regional differences in family systems (Goode, 1963; Dixon, 1980; P.C. Smith, 1980a). Other research of this more institutional or cultural orientation treats nuptiality as an intervening variable with significant impact on fertility (Davis and Blake, 1956; Holsinger and Karsarda, 1976).

A related line of argument of a more historical character relates changes in marriage timing to the motivational, behavioral, and technological transformations leading to widespread and effective use of birth control (Matras, 1965). It has been observed that in Europe the historical disassociation of marital exposure and pregnancy led to earlier marriage in the decades following demographic transition. (This aspect of the European experience raises an important question about the future of Asian nuptiality once birth control becomes widespread, a condition that does not seem far off for some Asian populations, but that question is separable from the early transition nuptiality patterns of interest here).

Comparisons of urban-rural differentials across regions globally (Dixon, 1980; P.C. Smith, 1980a) yield an observation that we will explore further in this paper: that there is something in the character of family systems which leads to later urban than rural marriage in some cultural settings but earlier urban than rural marriage in others. In many Western European societies characterized by stem family systems, urban marriage is earlier than rural, or at least not noticeably later than rural, and this late marriage among farm households is linked to requirements of the rural social system for inheritance of land or the accumulation of other resources before marriage. These requirements constrain rural marriage, but urban dwellers are not constrained in this way, especially if urban employment creation is reasonably rapid (Habbakuk, 1955). In contrast, "joint" and other kinds of extended family system are said to make early marriage possible by cushioning young couples from the short-run costs of household formation. In the present analysis we also find a sharp difference between European and Asian urban-rural nuptiality differentials.

These comments in effect pose a complex research agenda for the future. The goals of this paper are more limited: first, to present and examine data indicating certain empirical contrasts between Asia and Europe at roughly comparable times in their economic histories; and second, to compare some important Asian populations during the recent period of very rapid change.

A brief overview of the contemporary Asian nuptiality transition, drawn mainly from material reported in detail elsewhere (P.C. Smith, 1980a), places the nuptiality experience of the four societies under study in the context of Asia as a whole.

In summarizing world marriage patterns, Bourgeois-Pichat (1965) notes that proportions currently married among Asian women are intermediate in magnitude–generally higher than schedules for Europe and Latin America but lower than schedules from North and sub-Saharan Africa. His comparison implies, however, that roughly common patterns are found *within* each of the world's regions. On the contrary, areal analysis of marital status data from ten Asian countries (P.C. Smith, 1977; 1980a) highlights the great diversity that exists across the Asian region with respect to the timing of marriage–especially among the south, southeast, and east Asian subregions, and within these zones and countries.

That analysis also demonstrates that a quantitatively important and virtually universal transition toward later marriage has been under way for several decades in the Asian region. Figure 1 depicts the transition for a number of Asian countries. Nations from the three major subregions of Asia, and countries at all levels of economic development, have shared in the transformation. Figure 1 also indicates that the four countries considered in this paper provide a fair representation of the Asian experience. All have witnessed considerable change in marriage timing; each of the three subregions is represented, as is a range of contemporary levels of marriage.

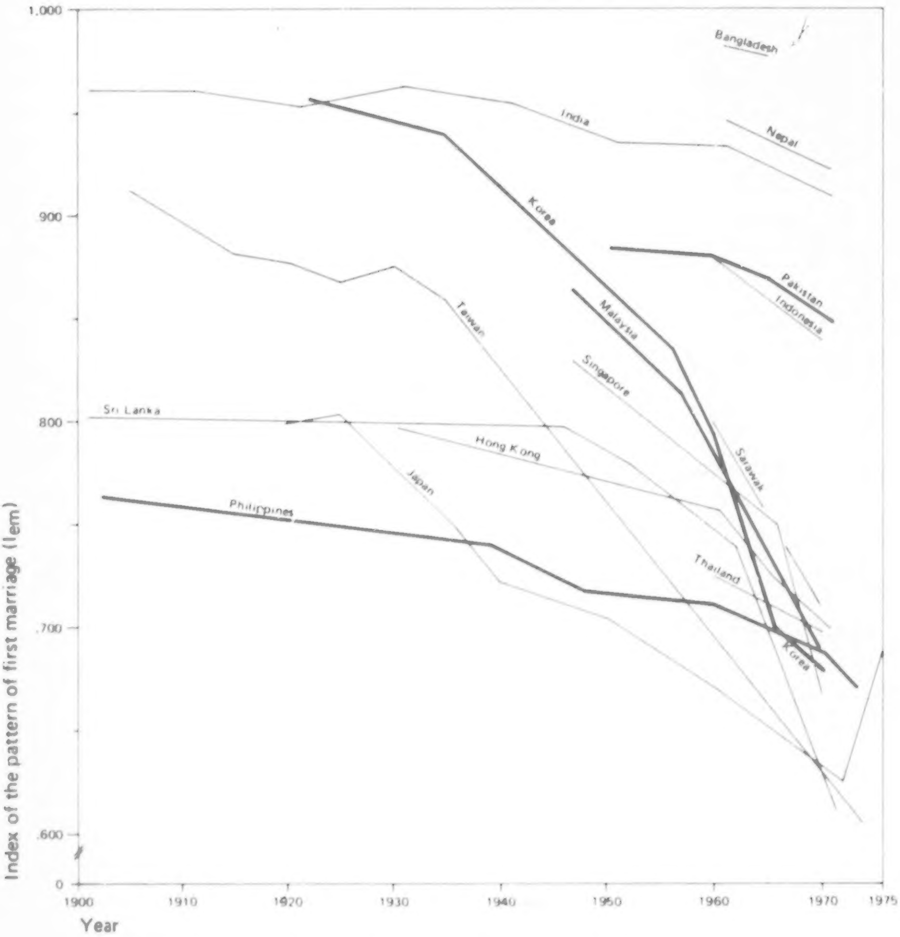
DATA, METHODS, AND STRATEGY OF ANALYSIS

We compared two kinds of data on marriage patterns: marital status distributions for geographic areas in successive censuses, and individual-level survey information for representative samples of currently-married women.

Census data on marital status

All marital status information has been taken from published census sources that reflect similar de facto concepts of marital status (for references and further discussion see P.C. Smith, 1980a). The following

FIGURE 1 National trends in the index of first marriage (I_{em}): 1900–75



SOURCES: Computed from published marital status distributions.

nuptiality indicators have been calculated from this information: percentages single by age group, Hajnal's singulate mean age at marriage (SMAM), and a variant of Coale's index of marriage pattern (I_m).

The singulate mean age at marriage or SMAM (Hajnal, 1953) utilizes percentages single from one census or survey to obtain, using a single-decrement procedure, the implied average number of years of single life for a hypothetical cohort. It yields mean ages that typically differ from means obtained from vital statistics or retrospective survey responses, and that refer to an indeterminant segment of time prior to the census or survey. Coale's well-known index of marriage pattern (I_m) is based on numbers of women *currently* married by age (Coale, 1969), whereas our variant (which we label I_{em}) utilizes numbers *ever* married (P.C. Smith, 1978). Coale's I_m measures the impact of the whole marriage pattern (including marital dissolution and remarriage) on fertility, while our I_{em} isolates the effect of the first marriage process. I_{em} is well-suited for our purpose and is most analogous to the SMAM and to other survey-based indicators of age at marriage.

Each of these indexes is weighted, or is expressed in relation to a standard pattern. I_m (and our I_{em}) approach unity to the degree that marriage is universal in the 15–49 age range, and the age-specific proportions married used in the calculation are weighted by the very high Hutterite marital fertility pattern for 1921–30. SMAM incorporates a fixed weight across the age groups.

The household surveys

We used surveys conducted in the late 1960s or early 1970s. These surveys were conducted mainly to obtain information about reproductive behavior, but they also generated information related to the timing of first marriage among women.

In 1970–71 the Korean Institute for Research in the Behavioral Sciences (KIRBS) conducted a survey entitled Korean Attitudes and Birth Control Behavior. A stratified multi-stage sampling design was used to obtain a probability sample representing Korea, and a total of 1,883 ever married women in the age range 19–44 were interviewed in the sampled households (Chung et al., 1972:18–19). The present study utilizes data on 1,814 currently and once married women from this survey.

The West Malaysian Family Survey, conducted in 1966–67, was designed to obtain fertility and other socioeconomic and demographic indicators for currently married women in the childbearing ages (Government of Malaysia, 1968). Based on a probability sample of households in West Malaysia, the survey resulted in completed interviews for 5,457 currently married women 15–44 years of age. The present analysis is based on 4,497 once married women from this sample.

Data for Pakistan have been taken from the National Impact Survey, conducted in 1968–69. This was a national probability sample survey that collected benchmark data on certain socioeconomic and demographic variables (Government of Pakistan, n.d.). A two-stage stratified sampling procedure covered 3,340 households within which 2,910 once and currently married women below the age of 50 were interviewed.

In the Philippines, the first National Demographic Survey (NDS) was conducted in 1968. A simple, stratified, two-stage sampling design was used to obtain interviews with ever married women below the age of 50 (Flieger and Smith, 1975). This total included 4,281 once and currently married women whose marriage patterns are examined here.

Despite differences in the goals and methods of these surveys, their coverage of the national populations is broadly comparable. The range of social-economic development levels represented by the four countries is illustrated in Table 1, which also introduces the major socioeconomic variables of interest.

The strategy of analysis

At the simplest level our analysis is descriptive: both geographic data for subnational areas and the survey results were exploited in this fashion. In addition, we undertook several kinds of analytic decomposition of the observed patterns. The total variance in age at marriage was decomposed into within- and between-category components in order to establish a kind of social "map" of nuptiality variations within each country, and these "maps" were compared across countries.

The descriptive analysis identifies two sets of factors as the most important determinants of nuptiality change: first, urbanization, urban exposure, and urban residence; and second, the level and consequences of schooling. These factors were examined using regression and multiple classification analyses. Throughout, comparisons are offered of results at the areal and individual levels. Variance decompositions, regressions, and multiple classification analyses all indicate points of similarity and difference between results at these two levels.

TABLE 1 Selected characteristics of the household surveys and of women in the samples

Characteristic	Country Korea	Malaysia	Pakistan	Philippines
Date of survey	1970–71	1966–67	1968–69	1968
Age range covered	19–44	15–44	15–49	15–49
Number of once and currently married women[a]	1,814	4,497	2,910	4,281
Mean current age	31.9	29.9	30.5	34.0
Mean marriage duration	11.6	12.3	13.5	13.8
Mean age at first marriage	20.3	17.6	16.0	20.2
Percentage living in largest metropolitan area[b]	38.3	5.8	4.0	9.7
Percentage living in urban areas	54.8	26.1	27.8	29.0
Percentage literate				
Urban	85.8	70.8	27.3	91.2
Rural	63.1	46.3	4.2	75.7
Percentage with six or more years of schooling	12.8	8.5	3.2	19.5[c]
Percentage in households with electricity	u	43.0	27.4	38.3

u–unavailable.

a All subsequent figures pertain to once and currently married women only.

b Seoul, Kuala Lumpur, Karachi, and Manila, respectively.

c Eight or more years of schooling.

FOUR CASES OF NUPTIALITY TRANSITION

Survey versus census evidence of delayed marriage

The four countries under study have experienced trends in female nuptiality much like the changes taking place in other countries of the Asian region. However, the trends which are clear in the census-based indexes of nuptiality (I_{em}) are obscured by biases in the retrospective survey responses on age at first marriage. We have computed mean ages at marriage for current-age and duration-of-marriage groups in each survey. These two types of tabulation yield quite different results; precisely how different is evident in Figure 2, where the means are plotted against the calendar periods in which they occurred (or might be assumed to have been concentrated).[2]

For two principal reasons, the upward trend in age at marriage so evident in the census marital status information is not indicated clearly by the retrospective survey results. First, in the trends by current age the experience of the younger age groups is only partial and the means are correspondingly low. Only after age 30 or so have most of the ultimate events for a cohort actually occurred by the time of the survey. At the other end of the age range, say for ages beyond 40 or so, recall problems become severe. Second, the means by duration category suffer, though only at the longer durations, from the truncation of current ages at age 45 or 50 in each of the surveys (Ryder, 1975). For example, women married 20 years or longer tend to be over age 40; many are above age 45 or 50 and therefore do not appear in the samples because of censorship at an upper age limit. Since in the longest duration categories the women who married earliest are currently at the oldest ages, these persons are especially underrepresented because of age-truncation and the means for longer durations consequently are overstatements of the true means. In contrast, short-duration women suffer minimally from recall problems and neither they nor any of their marriage experience is censored. The pattern of error is opposite in direction for age- and duration-specific tabulations: age tabulations are most reliable in the moderately recent past, but the experience of younger women is very incomplete; duration-specific tabulations are poor at longer durations but are reliable at short durations.

We can approximate the extent of censorship of events among the younger age groups by assuming the distribution of women by age at marriage in appropriate model nuptiality schedules.[3] Doing so, we conclude that the duration-specific and age-specific data from each of the surveys that are most reliable (not significantly censored or incomplete) are as follows:

---

[2] The means for the duration groups D_i centered i years before each survey are easily allocated to calendar periods. But, because means by age group describe events dispersed over time, they cannot be plotted so precisely. We have sought a rough indication and comparison by plotting these means on the assumption that all events in an age group i occurred at age a_i (the mean age at marriage for the age group); the mean age at marriage for each age group has been plotted as many years before the survey date as the central age for the group exceeds a. Table A1 contains the data shown in Figure 2.

[3] We selected Coale (1971) model nuptiality tables using the parameters a_0 and k obtained from published proportions married. The parameters are as follows (a_0, then k): Korea (17.7, .466); Malaysia (12.6, .588); Pakistan (12.5, .592); Philippines (14.0, .784). Values of $g_s(x)$ from Coale's Table 2 suggest the following proportions marrying after specified ages (age, then proportion): Korea (30, .036); Malaysia (30, .020); Pakistan (30, .020); Philippines (35, .034).

Age or duration	Korea	Malaysia	Pakistan	Philippines
Upper age cut-off in survey	45	45	50	50
Age by which 96% of events have occurred	above 30	above 30	above 30	above 35
Duration-based estimates reliable to duration. . .	15 years	15 years	20 years	15 years
Age-based estimates reliable above age. . .	30 years	30 years	30 years	35 years

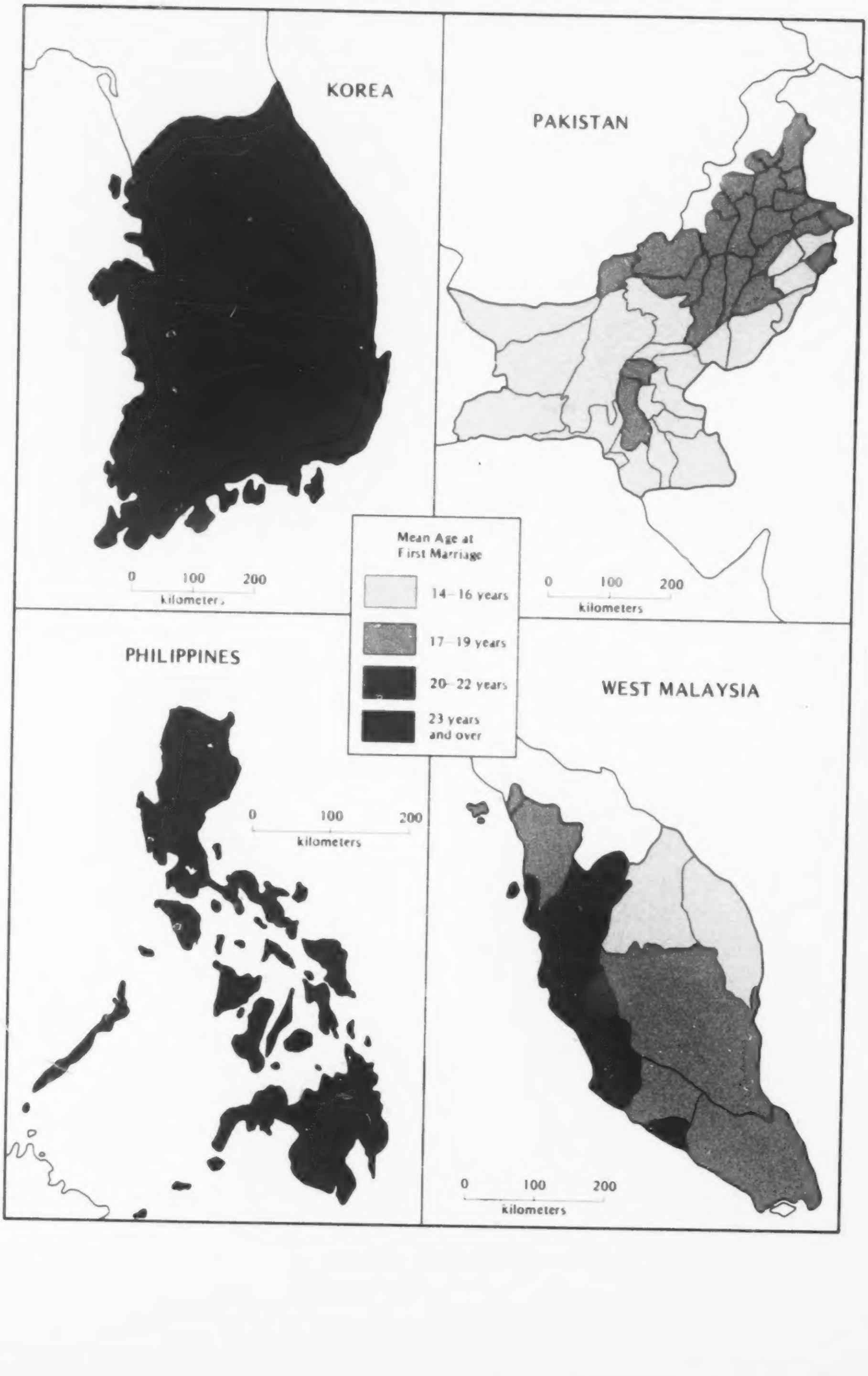
It seems unwise to interpret the trend line for age groups until after age 30 or so, and perhaps after an even older age in the Philippines, where some events seem to occur at more advanced ages. A similar argument leads us to ignore the trend across duration categories prior to 15 or 20 years or so before the surveys. When the age cutoff is 45, for example, and most events occur by age 30, only durations up to 15 years have nearly complete experience.

Having determined the segments of the age and duration-of-marriage curves of greatest interest, we have the trend lines indicated in Figure 2. Juxtaposing trends in SMAMs from the censuses, we have patterns which are somewhat reassuring. Nevertheless, our overall conclusion is that the trends in nuptiality cannot be seen very clearly from these surveys, at least not so clearly as in cross-sectional data from the periodic censuses. On balance, we conclude that duration groups offer the best opportunity for analysis of nuptiality trends. They provide the most reliable estimates of marriage timing, at least for the important though limited segment of time immediately preceding each survey.

Census evidence of geographic differentials

Maps of provincial levels of the SMAM (Figure 3) demonstrate not only the range of nuptiality experience across the countries but also the extent of variability within each of them. (We use "province" as a general term in this paper to refer to *do* in Korea, "state" in Malaysia, "district" in Pakistan, and "province" in the Philippines.) Relatively late marriage is found along the western provinces of Korea as well as in Kyongsangpuk Do and Pusan. In Pakistan relatively late marriage (at least in relation to elsewhere in Pakistan) is found mainly in the

FIGURE 3 Singulate mean ages at marriage among females in the provinces of Korea (1970), Pakistan (1961), Philippines (1970), and West Malaysia (1970)


KOREA
PAKISTAN
PHILIPPINES
WEST MALAYSIA
Mean Age at First Marriage
14–16 years
17–19 years
20–22 years
23 years and over
0 100 200
kilometers

northern districts. In the Philippines the highest SMAMs are found in Central Luzon near Manila and in the Western Visayan islands, whereas in Malaysia the highest SMAMs are found along the relatively developed western coast.

Geographic ubiquity of change

One of the most remarkable aspects of the Asian nuptiality transition is its geographic spread and its broad uniformity of tempo across areas. Just as virtually all Asian nations are involved in the current transition, nearly all subareas within each of them are witnessing changes of magnitude.

Data for a total of 137 subareas in Korea, Malaysia, and the Philippines are presented in Figure 4, and for all but six a downward shift in I_{em} is indicated. Moreover, the data for Malaysia represent the three racial groups separately and even at this level of detail similar changes are found throughout. In all three countries absolute amounts of change during the period seem largely unrelated to initial levels of I_{em}.

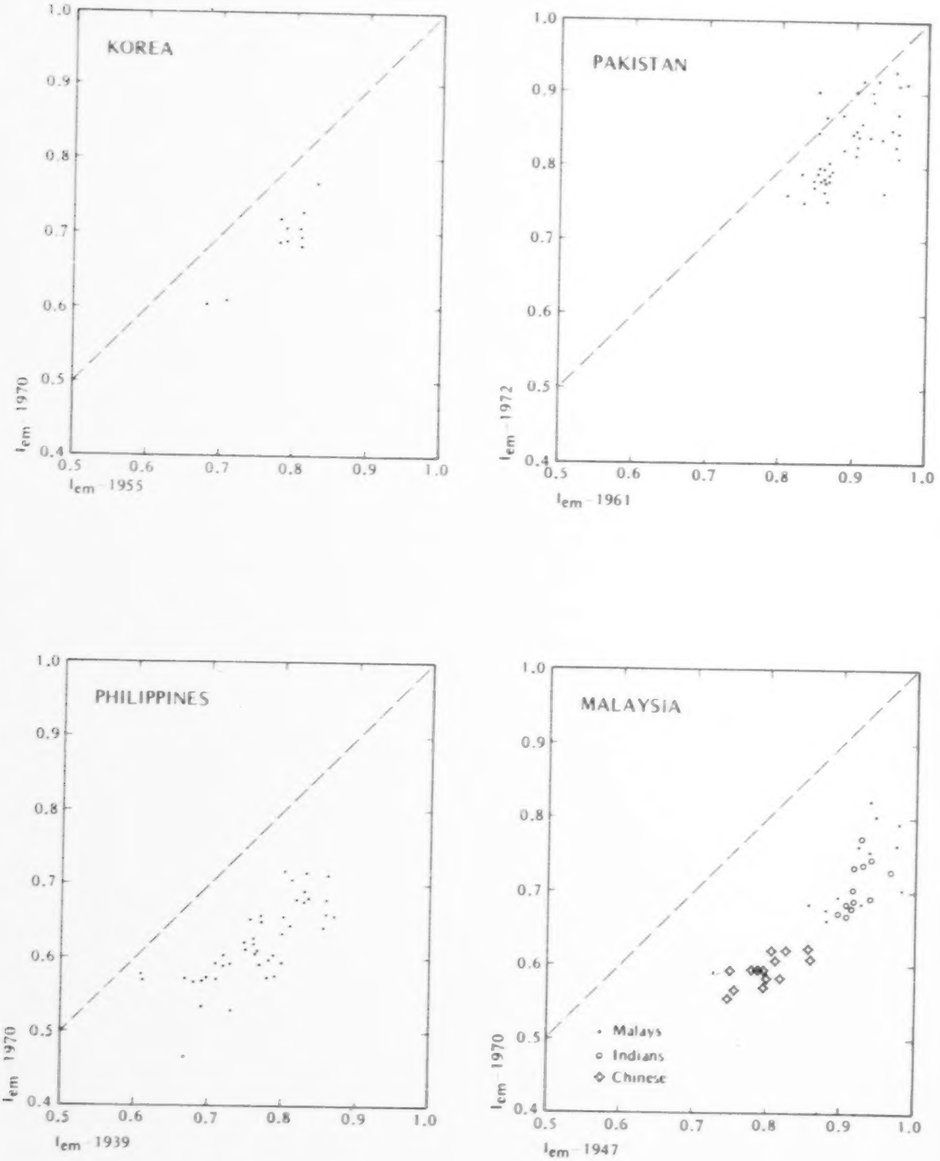
Racial, linguistic, and religious differences

For each of the countries, the major (or at least the most obvious) cultural variations in nuptiality can be summarized (Table 2). The racial, linguistic, and religious categories examined here are relatively enduring compositional features of these societies, so the differentials presented might be viewed as the fixed social topography upon which major transformational changes (like urbanization and educational attainment) are occurring.

Korea is predominantly Confucian ("other" in Table 2) and Buddhist, and these groups have similar marriage patterns. But the Christian minorities in Korea (Protestant and Catholic) marry about 1.5 years later and have somewhat higher proportions marrying at older ages. The average religious differential is small, and in an analysis of variance (not shown) only 4 percent of the individual-level variance in age at marriage is accounted for by religious group differences. Language differences, shown for Pakistan and the Philippines, are also very small and negligible proportions of variance are accounted for.

Malaysia is a contrasting case, where the religious and racial division among Malays (predominantly Muslim), Chinese (Buddhist), and Indians and Pakistanis (mainly Hindu and Muslim, respectively) are large and of great social significance. Age at marriage differentials

FIGURE 4 Recent changes in I_{em} for geographic areas in Korea, Malaysia, Pakistan, and the Philippines



across these groups span as much as four years and the racial and religious classifications account for, respectively, 18 and 16 percent of the individual-level variance.

In our examination of urbanization and education, religious and linguistic or racial differences are ignored in Korea, Pakistan, and the Philippines on the strength of the evidence reported here, but they are considered in the case of Malaysia.

VILLAGE, TOWN, CITY: RESIDENTIAL DIFFERENCES IN MARRIAGE PATTERNS

The contrast between the Asian and European nuptiality transitions is especially evident with respect to the pattern of urban-rural differentials. Many observers of the transition in Europe have argued that industrialization shattered agricultural as well as urban (e.g., guild) barriers against early marriage, and that the result was much earlier marriage in rural proto-industrial and urban proletarian settings than in traditional rural and more constraining urban circumstances (Everseley, 1965; Habbakuk, 1955; Knodel and Maynes, 1976; Lesthaeghe, 1977; Petersen, 1960). But the evidence in this regard is inconclusive; observed nuptiality differentials between European cities and their hinterlands are generally small in magnitude and inconsistent in direction. Anderson (1976) examined county-level data for England and Wales in 1861 and did find that the singulate means for both sexes were higher in the rural than the urban sectors (excluding London, where later marriage prevailed). But the intersectoral differences are not great. On the other hand, the impact of rural proto-industrialization on age at marriage in England is clearly evident in Levine's (1977) analysis of reconstitution results from Shepshed, Bottesford, Colyton, and Terling. Knodel and Maynes (1976) present 19th century data for a number of European countries and observe small urban-rural differentials–in both directions. Among German states they find no evidence of earlier marriage in urban areas, though they suggest the possibility that the urban singulate means may be higher than otherwise due to the presence of military conscription and the garrisoning of troops in urban areas. Flinn et al. (1977) present data describing geographic areas in Scotland over the 1861–1931 period: again, urban-rural nuptiality differences are small, and they generally indicate earlier marriage in cities and towns. On balance, though Europe urbanized at a rapid rate relative to that of most of Asia (Pernia, 1977), urban and rural sectors in Europe remained broadly similar in the timing of marriage.

An examination of Asian urban-rural nuptiality differentials has shown the contrast with Europe to be pronounced. Every Asian society on record shows urban women marrying later than rural women, and often the differentials are quite substantial (P.C. Smith, 1980a). In exploring the impact of urban versus rural residence and urban exposure on age at marriage in the four Asian countries under study here, we take special note of the impact of rural versus urban birth and rural-urban migration on these cross-sectional differentials. We also intend to show that much of the individual-level rural-urban differential in age at marriage is a function of differences in the composition of the population with respect to educational attainment. In a subsequent section the role of the schooling process and its correlates is pursued further.

Urban-rural differences by geographic area

Areal data from the four countries demonstrate the near-ubiquity of an urban-rural differential favoring the urban sector.[4] In Figure 5 nearly all points lie below the diagonal line denoting urban-rural equality on I_{em}. In Korea the urban I_{em} is 15.3 percent below the rural, and marriage is later in the urban than in the rural part of every *do.* The I_{em} for metropolitan Seoul is 17.8 percent below the rural level and is lower than for any other area, urban or rural. A similar observation applies to the provinces of the Philippines–where urban I_{em} is 20.2 percent below and Manila I_{em} 29.0 percent below the rural–and to a lesser degree to the districts of Pakistan. (But in Pakistan the urban level is below the rural by only 6.4 percent, and Karachi is not a leading area. The exceptions include five peripheral districts in the northeast and west.)

Urban and rural levels of I_{em} are also highly correlated across geographic units of each country, indicating perhaps a significant effect of urban sectors on their surrounding rural hinterlands (or vice versa). In none of these countries does the absolute amount of urban-rural difference seem related to the rural or urban level of I_{em}.

Survey trends and differentials by current residence

These areal results are corroborated by our survey differentials, which

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[4] Even urban definitions similarly conceptualized generally do not yield data that are truly comparable because of essential variations in patterns and intensities of rural settlement and urban agglomeration. The urban definitions used in the four censuses and the four surveys employed here are those deemed best by the respective census organizations.

FIGURE 5 Recent urban-rural differences in I_{em} for geographic areas in Korea, Malaysia, Pakistan, and the Philippines

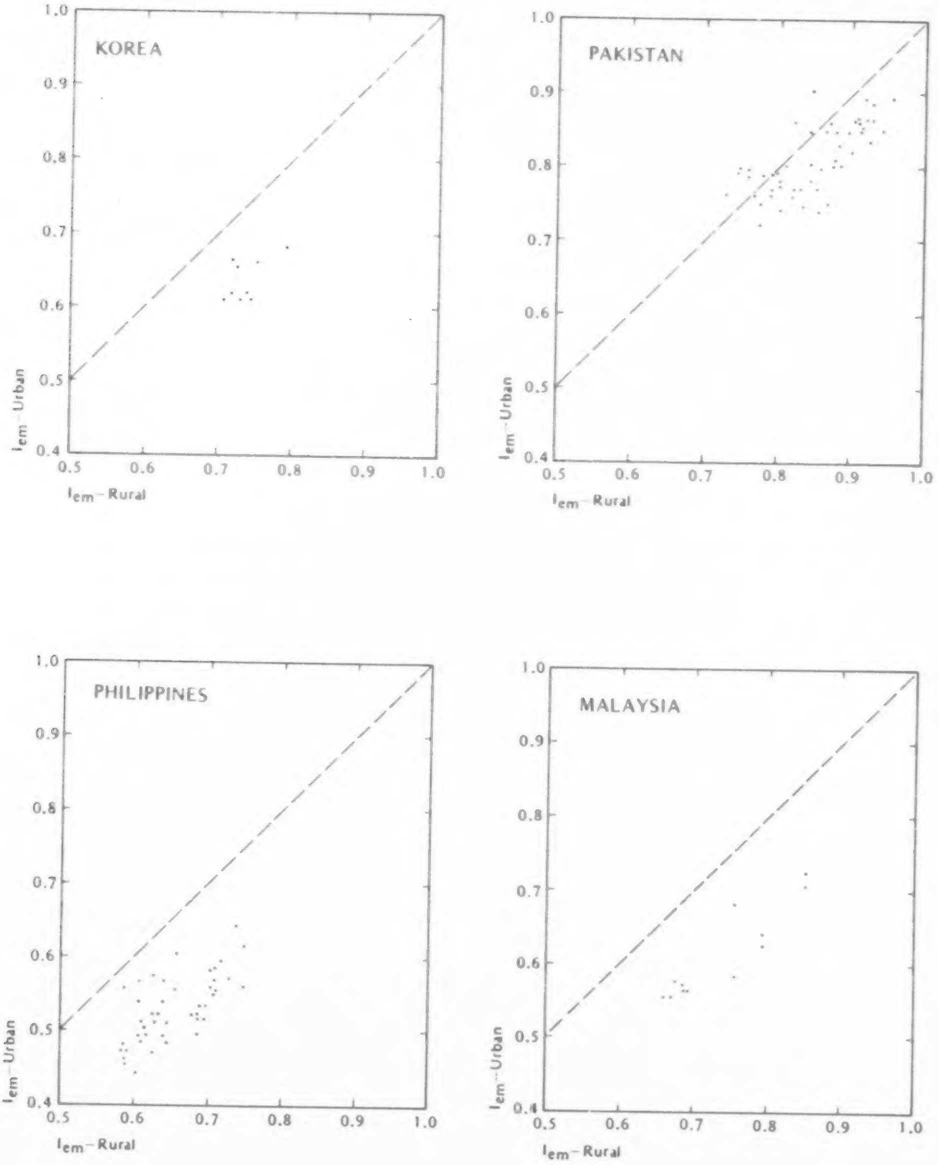

FIGURE 2 Comparative estimates of the trend in the mean age at marriage: Korea, Malaysia, Pakistan, and the Philippines

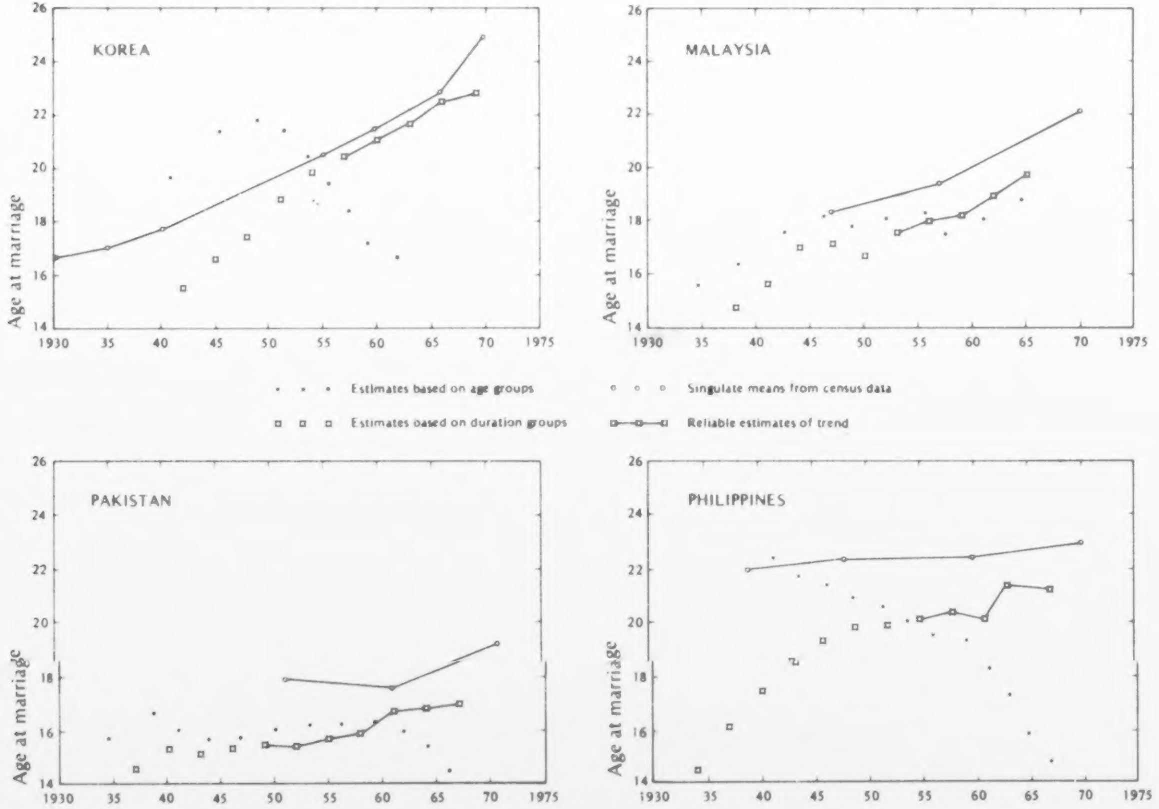

TABLE 2 Patterns of age at marriage by available racial, linguistic, and religious categories

Country and cultural category	Sample *N*	Percentage distribution	Percentage marrying by age group: Under 15	15–18	19–22	23+	Mean age at marriage
KOREA, religious group							
Buddhist	406	22.6	1.3	29.7	49.2	19.8	19.8
Protestant	188	10.4	1.1	13.2	53.7	32.0	21.5
Catholic	87	4.8	0.0	19.5	42.5	38.0	21.6
Other	1,117	62.1	2.0	35.0	44.6	18.4	20.0
MALAYSIA							
Religious group							
Buddhist	1,080	24.3	3.7	30.0	44.7	21.6	20.1
Christian	110	2.5	2.7	26.3	43.6	27.4	20.6
Hindu	487	11.0	17.2	53.8	21.9	7.1	17.2
Islamic	2,765	62.2	26.0	49.5	18.9	5.6	16.6
Racial group							
Malay	2,715	61.9	25.9	49.3	19.0	5.8	16.6
Chinese	1,110	25.3	2.5	28.7	44.8	24.0	20.4
Indo-Pakistani	557	12.8	17.7	51.4	22.0	8.9	17.3
PAKISTAN, language group							
Punjabi	1,701	61.3	34.1	48.3	14.4	3.2	16.2
Pushto-Baluchi	381	14.0	37.0	50.3	10.7	2.0	15.7
Sindhi	382	13.4	60.4	33.9	4.7	1.0	15.0
Urdu-Gujrati	431	11.3	37.5	48.1	11.2	3.2	15.9
PHILIPPINES, language group							
Ilocano	382	10.2	6.3	33.2	37.7	22.8	20.0
Tagalog	1,458	26.3	4.3	34.8	35.5	25.4	20.2
Other Lowland Luzon	519	12.2	6.8	42.2	33.8	17.2	19.2
Other Upland	356	10.6	11.1	34.1	32.3	22.5	19.3
Visayan	1,526	40.7	5.8	37.7	35.1	21.4	19.8

SOURCE: Tabulations of the four household surveys.

are substantial everywhere but in Pakistan (Table 3). Differences between urban and rural sectors in the mean ages at marriage of women of all duration groups combined (summarized from Table 3) were 2.6 years in Malaysia, 1.2 years in the Philippines, 0.9 years in Korea, and 0.3 years in Pakistan. Differences in mean ages between metropolitan and rural sectors were 3.6 years in Malaysia, 2.3 years in Korea, 1.8 years in the Philippines, but only 0.2 years in Pakistan. The anomalous results for Pakistan, especially for metropolitan Karachi, may reflect the cultural and economic background of many Karachi residents who came to urban Pakistan from rural areas at the time of the partition in 1947 (Hashmi et al., 1964: chaps. 1 and 5; Karim, 1979). On the other hand, the exceptionally large Malaysian differential is surely due to a pervasive cultural difference between the predominately Malay rural sector and the predominately Chinese urban sector, which is superimposed on the normal forces influencing urban-rural differentials.

Although these residential differentials in mean age at marriage are certainly substantial, even sharper differences are evident when we examine the prevalence of "early" and "late" marriage in each residence category (see Table 3). Taking marriages occurring under the age of 15 as "early," such marriages are quite rare in Korea regardless of place of residence; but they are very common throughout Pakistan, even in metropolitan Karachi. Similarly, "late" marriages (after age 22) hardly occur in any sector of Pakistan but have become common in the urban and metropolitan sectors of the other three countries. Late marriage is frequent in the rural Philippines as well.

All of these differences change significantly across the several duration-of-marriage groups, though censorship of the data below age 15 (19 in Korea) and above age 45 or 50 limits our ability to assess these changes adequately.

Accounting for urban-rural differentials

With these urban-rural differentials at the areal and individual levels in view, we examined both sets of data from a multivariate perspective organized around two questions. How is the total variance in age at marriage divided *between* urban and rural sectors (the portion "accounted for" by the urban-rural classification) versus *within* these sectors? And to what degree is the initial urban-rural difference in each country "explained" in least-squares terms by certain socioeconomic characteristics of urban and rural populations? The technique used is multiple classification analysis with urban-rural categories as the

TABLE 3 Patterns of first marriage by urban-rural or metropolitan residence and duration of marriage: Korea, Malaysia, Pakistan, and the Philippines

Sector, country, and duration of marriage	*N*	Age at marriage				Mean
		Under 15	15–18	19–22	23+	
URBAN						
Korea	1,032	1.1	19.5	48.0	31.4	21.1
0–4 years	271	0.0	1.9	40.6	57.5	23.0
5–9 years	242	0.0	8.6	48.5	43.0	22.2
10–14 years	191	0.0	11.0	64.9	24.1	21.2
15–19 years	162	1.0	19.5	67.9	11.6	20.1
20+ years	166	5.8	71.3	22.1	0.8	17.2
Malaysia	3,963	7.9	35.5	36.8	19.8	19.4
0–4 years	767	0.9	21.4	43.1	34.6	21.4
5–9 years	915	2.6	26.3	42.6	28.5	20.7
10–14 years	807	6.0	38.1	37.3	18.5	19.5
15–19 years	657	9.9	44.0	34.1	12.1	18.5
20+ years	817	21.8	50.3	25.6	2.3	16.8
Pakistan	1,180	35.2	47.9	13.7	3.2	16.2
0–4 years	195	19.5	45.1	35.4	0.0	17.5
5–9 years	206	23.3	50.0	26.7	0.0	17.3
10–14 years	248	38.3	48.3	13.4	0.0	15.9
15–19 years	184	46.2	45.1	8.7	0.0	15.4
20+ years	347	42.9	49.3	7.8	0.0	15.5
Philippines	2,349	3.5	31.2	35.3	30.0	20.7
0–4 years	278	0.0	25.2	27.4	47.5	22.8
5–9 years	526	2.9	26.8	35.8	34.5	21.4
10–14 years	480	2.5	27.6	34.5	35.4	21.3
15–19 years	468	3.9	31.9	38.2	26.1	20.2
20+ years	597	6.2	40.4	37.1	16.4	19.0
RURAL						
Korea	850	1.6	35.6	48.8	14.0	19.5
0–4 years	110	0.0	10.2	56.9	32.9	21.9
5–9 years	163	0.0	12.1	64.9	23.0	21.3
10–14 years	171	0.0	17.5	70.0	12.5	20.4
15–19 years	189	1.4	39.5	54.7	4.4	19.0
20+ years	217	4.5	82.9	12.6	0.0	16.7
Malaysia	946	24.0	48.5	20.9	6.6	16.8
0–4 years	156	6.4	55.1	29.5	8.9	18.3
5–9 years	201	20.9	51.8	19.4	8.0	17.2
10–14 years	206	18.0	51.0	25.2	5.8	17.2
15–19 years	168	33.7	42.9	16.3	7.2	16.3
20+ years	215	39.3	43.7	15.8	1.2	15.3

TABLE 3 *(continued)*

Sector, country, and duration of marriage	*N*	Age at marriage				Mean
		Under 15	15–18	19–22	23+	
RURAL *(continued)*						
Pakistan	1,730	39.8	46.0	11.7	2.5	15.9
0–4 years	326	22.7	53.4	23.9	0.0	17.0
5–9 years	354	35.9	42.9	21.2	0.0	16.5
10–14 years	325	40.0	49.2	10.8	0.0	15.7
15–19 years	248	43.5	47.6	8.9	0.0	15.4
20+ years	477	52.4	40.2	7.4	0.0	15.1
Philippines	1,915	7.3	38.9	34.8	19.0	19.5
0–4 years	187	2.8	34.4	39.5	23.2	20.5
5–9 years	451	5.7	35.9	38.8	19.5	19.8
10–14 years	455	5.7	40.1	32.3	21.8	19.8
15–19 years	382	6.8	38.7	34.0	20.5	19.5
20+ years	440	12.0	43.0	32.4	12.7	18.3
METROPOLITAN[a]						
Korea	362	0.7	13.4	48.9	37.1	21.5
0–4 years	108	0.0	1.0	39.7	59.3	23.1
5–9 years	87	0.0	5.9	46.8	47.3	22.4
10–14 years	71	0.0	5.7	65.2	29.1	21.5
15–19 years	50	1.0	20.4	63.2	15.4	20.3
20+ years	46	4.4	60.0	33.4	2.2	17.7
Malaysia	315	5.4	29.1	65.5	0.0	u
0–4 years	75	0.0	17.5	40.2	42.4	u
5–9 years	67	1.6	20.3	41.5	36.6	u
10–14 years	67	4.1	31.8	39.9	24.3	u
15–19 years	58	5.6	15.9	42.1	27.1	u
20+ years	48	20.7	50.6	28.7	0.0	u
Pakistan	168	29.2	54.8	16.0	0.0	16.0
0–4 years	22	u	u	u	u	16.9
5–9 years	29	u	u	u	u	16.3
10–14 years	39	u	u	u	u	16.2
15–19 years	28	u	u	u	u	15.6
20+ years	50	u	u	u	u	15.6
Philippines	478	u	u	u	u	21.3
0–4 years	137	na	17.1	27.3	55.6	23.6
5–9 years	55	1.6	21.2	34.1	43.1	22.2
10–14 years	42	3.9	25.3	33.1	37.7	21.4
15–19 years	36	3.2	24.1	38.7	34.2	21.0
20+ years	208	6.7	36.5	38.2	18.6	19.2

u—unavailable. na—not applicable.

[a] Seoul, Kuala Lumpur, Karachi, and Manila, respectively.

TABLE 4 Summary of multiple classification analysis results at the individual and areal levels: age at marriage by place of residence

Level of analysis and MCA results	Korea	Malaysia	Pakistan	Philippines
INDIVIDUAL				
Urban mean age	21.1	19.4	16.2	20.7
Rural mean age	19.5	16.8	15.9	19.5
Difference (U–R)	1.6	2.6	0.3	1.2
R^2	.06	.10	.003	.02
GEOGRAPHIC AREA				
Urban SMAF	23.8	23.3	18.2	24.3
Rural SMAF	22.5	20.7	17.3	22.0
Difference (U–R)	1.3	2.6	0.9	2.3
R^2	.72	.54	.08	.57

SOURCES: Published census data for urban and rural sectors of provinces, and the four household surveys.

classificatory variable and educational attainments of husbands and wives as well as duration of marriage as controls.

Both our survey and aggregate census data suggest important urban-rural differentials in age at marriage,[5] but the allocation of variance between versus within these categories is quite different at the two levels of analysis (Table 4). In precisely the fashion suggested by Robinson (1950; see also Duncan et al., 1961:65 ff.; Allardt, 1969; Valkonen, 1969), correlation at the ecological level exceeds that at the individual level; this is particularly true for Korea, Malaysia, and the Philippines. Thus, the substantial rural-urban differentials do not necessarily imply a high degree of individual-level prediction on the basis of rural-urban residence. At the individual level for each country only a small proportion of the variance is explained—a considerable proportion is found *within* the urban and rural sectors.

We can explore this unexplained variance further at the individual level by introducing controls for several covariate characteristics of urban and rural residents. In this analysis we control for duration of marriage (to adjust for the different pace of recent changes in each sector), and for husbands' and wives' educational levels. These MCA results (Table 5) provide an indication of the interplay between urban-rural residence and educational attainment and the combined effects of these variables and recent changes in them on age at marriage.

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[5] Results at the two levels of analysis are not consistent regarding the relative magnitudes of urban-rural differences, however. Measured differences in Korea are greatest in the survey data, but for Pakistan and the Philippines the areal data show the largest differences.

In all the countries except Malaysia, most of the initial urban-rural differential is accounted for by these factors. The 1.6 year Korean urban-rural differential reduces to 0.1 years with these factors controlled (column 7); in Pakistan the 0.3 year initial urban-rural difference reduces to nil; and in the Philippines the initial 1.2 year difference reduces to 0.4 years.

Since the ineffectiveness of these controls for Malaysia might reflect that country's unique racial composition by urban-rural sector, which adds to the usual urban-rural differences sharp cultural differences absent in the other countries, we have considered a further MCA of Malaysian urban-rural differences in which racial groups form an additional classificatory variable. In this analysis the urban-rural difference is reduced from 2.6 years to 0.9 years–much closer to the adjusted differences in Korea, Pakistan, and the Philippines, but a substantial remaining urban-rural difference nevertheless. The R^2 is .285.

Other evidence is found in the variance in age at marriage that is accounted for by the urban-rural classification combined with the control variables. The proportion of variance accounted for is on the order of 10 percent for each country, except Korea where it is much higher. In each case other than Korea, the educational attainments of husbands and wives are the critical variables. Evidence for this is found in the sharp reduction of urban-rural differences when education only is controlled (columns 5 and 6 of Table 5).[6] Korea's pattern is unique in that the importance of education is dwarfed by the impact of duration of marriage (column 5). The reason for this is the especially rapid changes in Korean nuptiality which have occurred over recent duration-of-marriage groups.

Urban residence or urban birth?

One additional factor may have an important bearing on age at marriage differences–the composition of these urban and rural sectors with respect to sector of birth. The simple classification of women on the basis of urban versus rural *current* residence may actually understate true urban-rural differences in marriage patterns if, for example, women who migrate are selected on marriage timing or marry later (or earlier) as a result of having migrated. We hypothesize that migrating women will have intermediate ages at marriage on average, and therefore that the sharp urban-rural contrasts will be even greater when migrants are removed from consideration. By cross-classifying women by their sectors of birth as well as current residences and by examining the marriage experience in each cell we obtain the results shown in Table A2.

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[6] The importance of educational attainment might have been even greater in these models if the metric expressing years of schooling had been defined to express the non-linearities which may well exist in the education-marriage relationship (Cochrane, 1979:80–91).

The classification of urban versus rural origins is not strictly comparable across the four surveys. In Korea and the Philippines, urban and rural birthplaces are distinguished, but in Pakistan rural origin is based on whether the respondent ever lived in a village or not. In Malaysia, rural origin respondents are those who ever resided in a rural area. These discrepancies probably lead to understatement in the differences shown in Table A2 and below. The following differences summarize the patterns found in Table A2 (all duration groups combined):

Country	Observed urban-rural differential (U–R)	Urban natives—rural-born stayers	Rural-born stayers—rural out-migrants	Rural-born out-migrants—urban natives
Korea	1.6	2.4	-1.0	-1.4
Malaysia	2.6	3.2	-2.5	-0.7
Pakistan	0.3	0.4	0.0	-0.4
Philippines	1.2	1.2	-1.4	0.2

Except in the Philippines, the comparison between women with apparently extensive urban versus rural exposures yields larger differences than the comparison between women by current residence. (Lacking full residence history information, we must infer that women born and currently living in one of the sectors have on average spent most or all of their lives there.) And, except in Pakistan, rural-born women who leave that sector marry substantially later than those who do not. In three of the countries, rural-urban migrants marry earlier on average than native-urban women.

Further investigation of these differentials is warranted but beyond the scope of this paper. It should be determined whether these patterns reveal causal links between marriage and migration or reflect types of migrant selectivity (by social class, for example). The exceptions to the general patterns invite study as well.

THE IMPORTANCE OF LITERACY AND FORMAL SCHOOLING

For excellent overviews of the literature on education variables and family building see Caldwell (1980), Cochrane (1979), Holsinger and Kasarda (1976), and Graff (1979). Graff takes a skeptical view of education's importance for fertility, while Caldwell assigns to education a very central role, but little of the empirical work reviewed by either considers marriage patterns as distinct from childbearing. Graff's own research (1975) and that of numerous others suggest that literacy is an important influence on marriage patterns.

The European and Asian literacy transitions

Data on literacy levels in Europe are rare before the beginning of the 20th century, and by that time very high literacy levels had already been achieved in many countries. Cipolla (1969) has assembled much of the available information for the earlier period; in Figure 6 his data on male and female literacy levels in four European countries are presented along with roughly similar information for a number of Asian nations at recent dates, as well as for the countries we are examining at several points in time.[7] Malaysian data are shown separately by racial group.

The two regions display some basic similarities. Once it begins, the literacy transition is rapid in both regions and follows a similar areal sequence. Educational homogeneity at a low literacy level gives way to areal variation, then to areal homogeneity at a high level of literacy (see Cipolla, 1969: table 3, page 90, for Europe; Sundaram, 1977, for Asia). The sexes are very unequal with respect to literacy at the beginning of the transition (Cipolla, 1969:6), but convergence quickly occurs with literacy becoming nearly universal for each sex. Finally, towns and cities, and in general areas of greatest economic development, lead the transition in both regions.

More interesting are the apparent regional differences. Asia began its rapid literacy transition at very low absolute levels of literacy, whereas many European populations had substantial levels of literacy prior to their industrial and literacy revolutions (see, e.g., Stone, 1969; West, 1978). Indeed, Anderson (1965:34) has suggested in reference to the European pattern that "a literacy rate of 30–40 percent was a necessary condition for a country to make a significant breakthrough in per capita income" (see also Bowman and Anderson, 1963). Levels and patterns of transition have been more diverse in Asia. Twentieth century data indicate very low literacy levels in Pakistan and Bangladesh as recently as the 1960s and 1970s, but, simultaneously, high literacy levels in many other Asian countries. Among the four countries under review, Pakistan and Malaysia show initial periods of declining male-female equality (from which Malaysia has since recovered) whereas Korea and the Philippines have now completed rapid transitions to very high levels of literacy and male-female equality.

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[7] The European historical series are based upon data for brides and bridegrooms indicating whether they could write their names (see Cipolla, 1969:121 ff.). All other data except for Korea are for literacy (ability to read and write in any language) in the age range of 10 or 15 and older. The Korean data are percentages of those aged six or over who had never attended school.

Perhaps most significant for Asian nuptiality patterns and, more generally, for the evolution of women's roles, is that in many Asian countries literacy exhibits more inequality of the sexes than it does in European countries on record. (Malaysia and Pakistan are extremes in this regard with their declining levels of equality over time.)

Also extremely important for Asian nuptiality change, as compared with the European experience, is that literacy change in the former has been much more rapid. For the data available, the average regional changes per decade (in percentage points) are as follows:

Region (No. of countries)	Male	Female
European (*N* = 4)	5.2	7.9
Asian (*N* = 4)	9.7	9.9

In the four countries under study female literacy has recently been rising by nearly a percentage point per year and male rates have been rising almost as rapidly.

There are highly significant qualitative differences between the European and Asian experiences as well. Most fundamentally there is the secular character of many Asian educational systems compared with the (frequently) church-sponsored education in nineteenth century Europe. This kind of educational exposure can be crucially important in a village setting by offering a direct linkage to the larger polity (Goody, 1968). It should be remembered in this connection that the ideological underpinnings of mass secular education evolved slowly in Europe (Resnick and Resnick, 1977), but the same ideas have motivated state-directed programs of mass education in Asia, often well in advance of significant economic development.

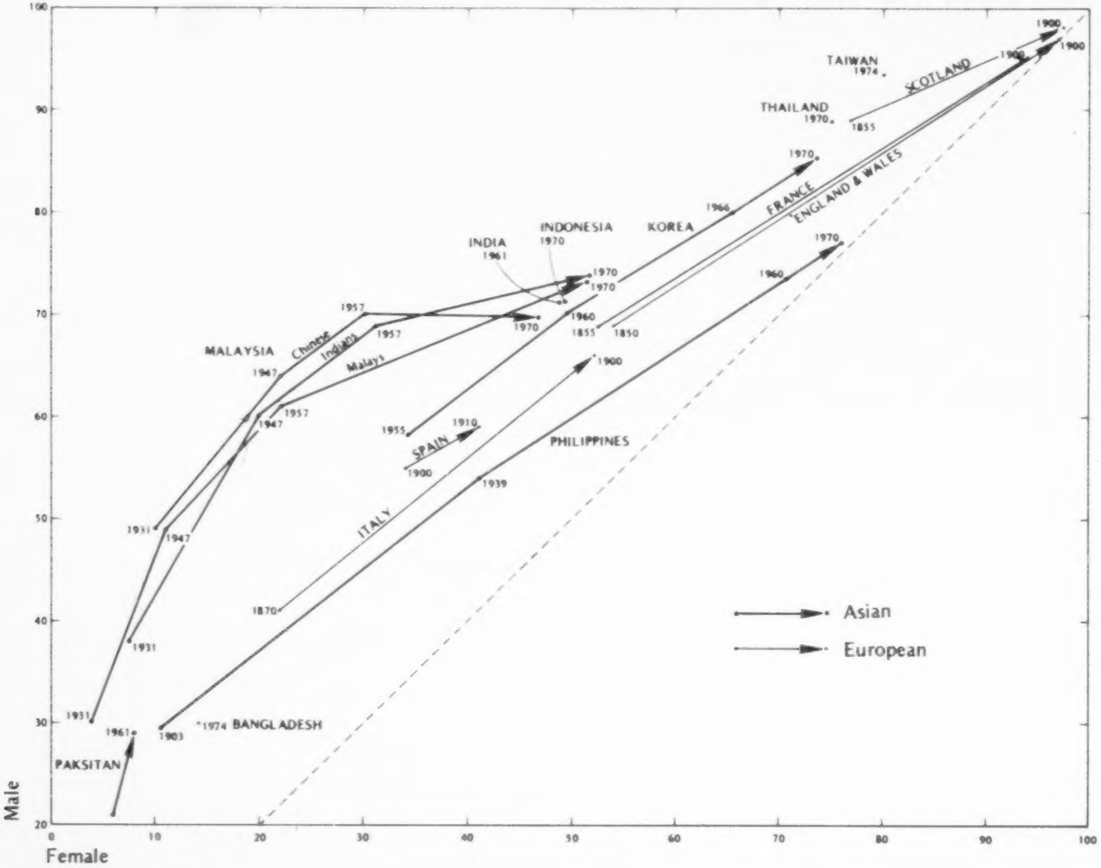
Finally, there is only indirect evidence of education effects on marriage behavior in Europe. For example, the north-south fertility differential in Italy is consistent with prevailing north-south literacy differences (see Livi-Bacci, 1977: chapter 5), but this is an areal association

TABLE 5 Multiple classification analysis of the effect of place of current residence on the mean age at marriage

Country and present residence	*N*[a] (1)	Category mean (2)	Deviation from grand mean (3)	Deviation adjusted for:			
				Duration of marriage (4)	Wife's education (5)	Husband's education (6)	Combined effect of (4), (5), and (6) (7)
KOREA (*N*=1,814; grand mean=20.2)							
Urban	796	21.07	.87	.45	.17	.24	.07
Rural	1,018	19.52	-.68	-.35	-.13	-.19	-.06
Eta/beta			.25	.13	.05	.07	.02
R^2			.063	.478	.257	.203	.530
MALAYSIA (*N*=4,484; grand mean=17.66)							
Urban	1,425	19.45	1.79	1.79	1.52	1.48	1.40
Rural	3,059	16.82	-.84	-.83	-.70	-.66	-.62
Eta/beta			.32	.32	.27	.26	.02
R^2			.101	.101	.126	.121	.131
PAKISTAN (*N*=2,910; grand mean=15.96)							
Urban	1,180	16.18	.22	.27	-.02	.03	.02
Rural	1,730	15.87	-.09	-.10	.01	-.01	-.01
Eta/beta			.05	.06	.00	.01	.00
R^2			.003	.078	.033	.027	.100
PHILIPPINES (*N*=4,262; grand mean=19.82)							
Urban	2,347	20.69	.87	.87	.27	.29	.30
Rural	1,915	19.46	-.36	-.36	-.11	-.12	-.12
Eta/beta			.13	.13	.04	.04	.04
R^2			.017	.062	.058	.049	.091

a Excludes cases for whom information about one or more variables was not available.

FIGURE 6 The European and Asian literacy transitions: levels by sex for selected countries



and does not establish the individual-level pattern nor the mechanisms involved. More complex areal associations are evident in Lesthaeghe's (1977: chapters 5 & 6) analysis for Belgium. Finally, it should be noted that there is a broad areal association across Europe as a whole. Hajnal's (1965) well-known imaginary line from Leningrad to Trieste separating nuptiality regimes coincides rather well with the literacy variations among European countries described by Cipolla (1969: 71–72).

Female literacy and age at marriage in Asia

By the 1960s Asian societies were widely disparate with respect to male and female literacy rates and the degree of difference between the sexes. In examining the variations in age at marriage associated with these literacy differentials, we compared results at several levels: national, subnational, and individual.

At the national level the association between age at marriage (SMAM) and percentage of females literate is clear in the following results, calculated from data presented by Dixon (1971):

Region	Zero-order correlation	(*N*)
Europe	.038	(27)
Asia	.910	(14)

The correlation across European countries is constrained by the very small variance in female literacy in these countries, but the correlation across Asian nations is substantial.

A similar result was obtained for Asia when data were examined for subnational areas *within* countries (P.C. Smith, 1977; 1980a):

Region	Zero-order correlation	(*N*)
India	.758	(49)
Indonesia	.465	(49)
Korea	.544	(20)
Malaysia	.691	(11)
Pakistan	.463	(90)
Philippines	.268	(132)
Thailand	.328	(71)

In Figure 7 we juxtapose information for a number of Asian countries, regression relationships at the areal level within seven Asian countries, and individual-level data from our four surveys. Although the estimates of literacy and age at marriage from the several sources are not strictly comparable, there is an encouraging degree of consistency among the estimates derived from these different levels and sources of data.

Perhaps the underlying relationship is best summarized by regression slopes relating changes in the female SMAM to changes in the level of literacy:

Country	Regression slope
India	0.069
Indonesia	0.074
Korea	1.015
Malaysia	0.054
Pakistan	0.044
Philippines	0.048
Thailand	0.085

Setting aside the extraordinarily high regression coefficient for Korea (female literacy is very high in Korea and the areal variance on literacy is therefore very small), we have an (unweighted) average slope of 0.062; that is, a 10 percentage point increase in literacy is associated on average with a 0.62 year increase in the SMAM. Combining this result with the 9.9 percentage point per decade change in literacy noted above, we find that the 20th century literacy transition in Asia seems to be associated with an upward shift in the female age at marriage of about 0.6 years per decade.

Our four sets of survey data (presented in Table A3 for duration-of-marriage groups and displayed in a different form in Figure 7) suggest patterns that are broadly similar, country by country. The major difference is that the (singulate) mean ages at marriage from the areal data are uniformly higher than corresponding individual-level estimates, an expected result (P.C. Smith, 1978). On the other hand, most of the slopes are quite similar.

Years of schooling and age at marriage

The mean educational attainments of women in recent marriage cohorts have risen significantly (Table 6).[8] A variety of arguments stating why such a trend should affect age at marriage has been made (Timur, 1977; Cochrane, 1979). Rather than sort out these specific kinds of effect, our purposes here are, first, to measure the relationship in the four countries and, second, to assess the impact that rising years of schooling may have had upon rising ages at marriage and urban-rural marriage differentials in recent decades. We consider urban and rural sectors separately and look especially for changes over successive marriage cohorts. Although data are shown in Table 6 for longer marriage durations, our analysis is confined to duration groups 0–9 and 10–19 in order to avoid the problems of bias that were identified earlier.

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[8] Because of the way in which educational levels were coded in the four surveys (in broad categories of attainment), we have had to assign rough years-of-schooling equivalents, as follows: Korea (none = 0; some elementary = 3.5; elementary completed = 6; some junior high = 8; junior high completed = 9; some senior high = 11; senior high completed = 12; some college = 14.5; college completed = 16; beyond college = 17; informal schooling = 9); Malaysia (midpoints of categories given); Pakistan (never gone = 0; none or one year = 1; 2–3 = 2.5; 4–5 = 4.5; 6–9 = 7.5; matriculate or intermediate = 11; bachelor's degree or higher = 13); Philippines (exact years of schooling given).

Both age at marriage and years of schooling move upward over time; but the greatest increases in age at marriage are in the rural sectors, whereas the largest changes in schooling levels take place in the urban sectors (except for Korea, where rural educational progress has apparently been very great). As a result, the urban-rural differential in years of schooling has been decreasing in Korea but increasing elsewhere. The range in years of schooling completed is rather remarkable–from about eight years recently in urban Korea and the Philippines, to virtually nil in rural Pakistan. Rural women in Korea, the Philippines, and Malaysia have more formal schooling than do even urban women in Pakistan.

The association between marriage behavior and schooling is evident among cohorts, between urban and rural sectors, and across countries. A more detailed picture of the relationship is obtained by looking *within* each of these categories and fitting least-squares regression equations. Table 7 presents appropriate correlations between the two variables as well as regression results.

The correlations are modest to small in magnitude, reminding us that much of the individual-level variance in age at marriage is otherwise determined. Nevertheless, there are fairly consistent regression relationships across the various categories. All regression slopes but one are positive, and ten of the 16 fall in the range from 0.100 to 0.300. Four of the remaining six are very low coefficients in rural sectors (Pakistan, Philippines, and Malaysia), one (urban Pakistan) is relatively high, and one, as noted earlier, is negative.

In Korea and Pakistan–and for both sectors in each case–the coefficient rises between the 10–19 and 0–9 marriage cohorts, indicating an increasing nuptiality response to female educational attainment. In Malaysia and the Philippines–again, in both sectors of each–the reverse is true. The down-turn for the Philippines could reflect the very

TABLE 7 Pearson correlation coefficients and least squares regression results relating age at marriage (y) and years of schooling (x) within current residence and duration of marriage categories: Korea, Malaysia, Pakistan, and the Philippines

Country, sector, and duration group	Correlation r_{xy}	Regression of y on x	
		Intercept	Slope
KOREA			
Urban	.450	18.6	.347
0–9	.329	20.8	.231
10–19	.354	19.1	.216
Rural	.468	18.1	.390
0–9	.273	20.3	.224
10–19	.261	19.1	.175
MALAYSIA			
Urban	.284	18.3	.320
0–9	.174	20.1	.187
10–19	.175	18.4	.203
Rural	.056	16.7	.081
0–9	-.102	18.0	-.126
10–19	.016	16.7	.027
PAKISTAN			
Urban	.350	15.7	.326
0–9	.388	16.7	.327
10–19	.252	15.4	.239
Rural	.044	15.9	.121
0–9	.034	16.7	.095
10–19	.006	15.6	.015
PHILIPPINES			
Urban	.223	19.2	.205
0–9	.204	20.3	.197
10–19	.232	19.0	.245
Rural	.104	19.0	.119
0–9	.077	19.6	.069
10–19	.086	19.2	.123

SOURCES: The four household surveys.

high level of female education already achieved; but Korea, with a similar (though more recent) educational achievement, does not decline. We cannot explain the pattern for Malaysia.

The effect of future progress in literacy

The trends toward higher levels of literacy and educational attainment, and toward urban residence, seem likely to continue for some time and to continue to influence nuptiality. While avoiding any predictions about future marriage patterns in the countries under study, we can attempt a forward look at marriage patterns by taking some of the trends and relationships of the past, elaborated above, and projecting them forward in some plausible fashion.

Among the four countries, Korea has already reached an extremely high level of literacy, the Philippines is behind only slightly, Malaysia lags further, while Pakistan has barely begun to undergo significant change. Judging from the tempo measures of literacy change discussed earlier,[9] Malaysia and the Philippines are, respectively, 74 and 64 years behind Korea, and Pakistan is no less than 432 years behind if its current slow pace is not improved. There are urban-rural lags as well, particularly in Pakistan where a 28.0 percentage point lag between rural and urban will require 14 decades to make up at current rates of change. Clearly, the tempo of change needs to be modified.

A recent world-wide compilation of social indicators for women (Boulding, 1977) includes literacy levels and provides a useful context for thinking about future literacy levels in Pakistan, Malaysia, and the Philippines. As one standard, we have used the average Asian female literacy level (54 percent) from that compilation; another standard is the world average–the standard of the "world woman" (57 percent); another is, of course, universal female literacy.

Our procedure is to assess the possible future effects of literacy changes on age at marriage by making use of the regression slopes presented in the preceding section to reflect future responses of age at marriage to literacy changes, along with assumptions about the future course of literacy. These results are shown in Table 8.

This exercise should not be construed as a prediction of nuptiality trends, but it does show how an important regularity from the past might be an important source of nuptiality changes in the future. We have not fitted more elaborate regression equations–incorporating a variety of socioeconomic characteristics–but doing so could provide a firmer basis for anticipating the future.

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[9] Only regional averages were given above. By country, the increases in female literacy per decade (in percentage points) are: Korea, 25.9; Malaysia, 7.9; Pakistan, 2.0; Philippines, 9.7.

FIGURE 7 Relationship between mean age at marriage and the female literacy rate: estimates from survey and census data for selected countries

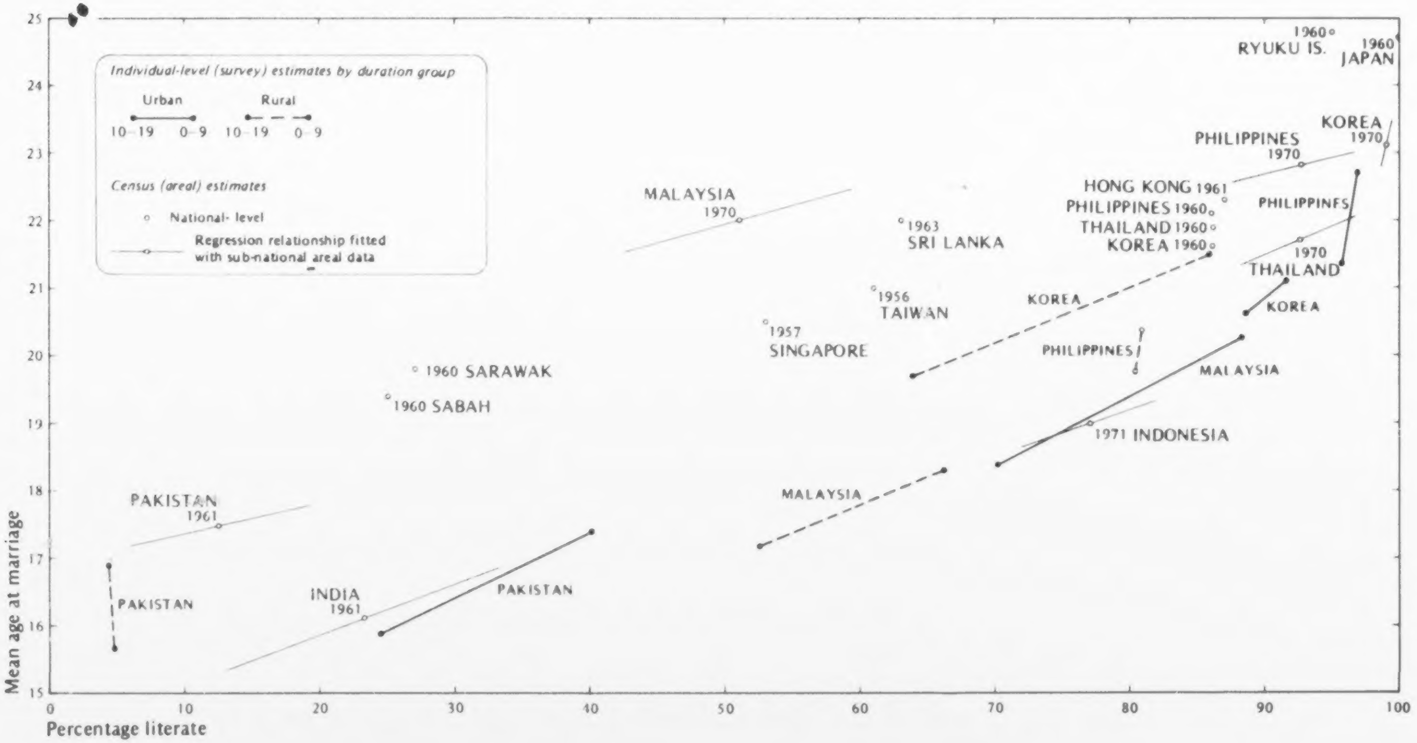

TABLE 6 Parameters of the distribution of age at marriage and years of schooling by current residence and duration of marriage: Korea, Malaysia, Pakistan, and the Philippines

Statistic, variable, and duration group	Korea		Malaysia		Pakistan		Philippines	
	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
MEAN								
Age at marriage								
0–9	22.7	21.5	21.1	17.7	17.4	16.7	21.9	20.0
10–19	20.6	19.7	19.1	16.7	15.7	15.6	20.8	19.7
20 and over	17.2	16.7	16.9	15.5	15.5	15.1	19.0	18.3
All durations	21.1	19.5	19.5	16.8	16.2	15.9	20.7	19.5
Years of schooling								
0–9	8.1	5.6	5.1	2.9	2.1	0.2	8.0	4.8
10–19	7.0	3.5	3.1	1.5	1.1	0.2	7.1	4.1
20 and over	4.0	1.7	2.0	0.6	0.9	0.1	6.2	2.9
All durations	7.0	3.8	3.9	1.8	1.4	0.2	7.2	4.1
STANDARD DEVIATION								
Age at marriage								
0–9	2.8	2.5	3.8	3.4	3.0	3.2	4.9	4.2
10–19	2.2	2.2	3.6	3.5	2.3	2.4	4.3	4.2
20 and over	1.9	1.6	3.0	3.2	2.3	2.1	3.3	3.5
All durations	3.1	2.8	3.7	3.5	2.7	2.7	4.4	4.1
Years of schooling								
0–9	4.0	3.1	3.6	2.8	3.6	1.1	5.1	4.7
10–19	3.6	3.2	3.1	2.1	2.4	1.0	4.1	3.0
20 and over	3.6	2.6	2.8	1.4	2.3	0.7	5.4	2.3
All durations	4.1	3.4	3.5	2.4	2.9	1.0	4.8	3.6

SOURCES: The four household surveys.

TABLE 8 Hypothetical future nuptiality changes in response to future changes in female literacy

	Initial literacy				Hypothetical future age at marriage by future literacy		
Country and sector	Year (1)	Percentage literate (2)	Mean age at marriage (3)	Estimated response to change in literacy[a] (4)	World average (54%)[b] (5)	Asian average (57%) (6)	Universal literacy (%100) (7)
KOREA	1970	99.0	23.0	1.015	c	c	24.0
Urban		99.3	23.8	1.094	c	c	24.6
Rural		98.8	22.5	0.085	c	c	22.6
MALAYSIA	1970	51.1	22.0	0.054	22.2	22.3	24.6
PAKISTAN	1961	12.5	17.5	0.044	19.3	19.4	21.4
Urban		33.6	18.1	0.077	19.7	19.9	23.2
Rural		5.6	17.3	0.151	24.6	25.1	31.6
PHILIPPINES	1970	92.8	22.8	0.048	c	c	23.1
Urban		96.8	24.4	0.002	c	c	24.4
Rural		91.0	22.0	0.005	c	c	22.0

a Regression slopes fitted with areal data.

b See Boulding (1977).

c Literacy level has already been surpassed.

CONCLUSION

Considered from almost any perspective, the available evidence suggests continued delays in the nuptiality of Asian women for some time to come. The trend is nearly ubiquitous in the region and the most advanced countries have now reached I_{em} levels not far above .600 or so. Two of these countries, Japan and Taiwan, have recently experienced upturns in I_{em}, so perhaps an I_{em} of approximately 0.600 represents a floor that will be approached eventually by other Asian societies. But such a prognosis is no doubt too simple: the societies of the region exhibit a wide range of initial nuptiality levels, and they have experienced change at varying tempos in response to urbanization and educational advances as well as other influences. It is likely that their behavior in the later phases of the nuptiality transition will be diverse as well.

APPENDIX TABLES

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TABLE A1 Basic data for Figure 2

Group	Korea			Pakistan			Malaysia			Philippines		
	N	Mean age at marriage	Year at which plotted	*N*	Mean age at marriage	Year at which plotted	*N*	Mean age at marriage	Year at which plotted	*N*	Mean age at marriage	Year at which plotted
AGE												
9–11												
12–14												
15–17				88	14.5	1966.5				4	14.8	1966.8
18–20				259	15.4	1964.4				103	15.8	1964.8
21–23				346	16.0	1962.0	249	18.8	1964.8	234	17.3	1963.3
24–26	4	16.6	1961.6	358	16.4	1959.4	305	18.1	1961.1	419	18.2	1961.2
27–29	174	17.2	1959.2	365	16.2	1956.2	369	17.5	1957.5	516	19.2	1959.2
30–32	234	18.4	1957.4	342	16.2	1953.2	423	18.2	1955.3	583	19.4	1956.4
33–35	295	19.5	1955.5	242	16.0	1950.0	504	18.1	1952.1	539	19.9	1953.9
36–38	308	20.5	1953.5	294	15.7	1946.7	724	17.8	1948.8	540	20.5	1951.5
39–41	281	21.4	1951.4	272	15.7	1943.7	567	18.2	1946.2	437	20.8	1948.8
42–44	272	21.8	1948.8	169	16.0	1941.0	576	17.6	1942.6	360	21.3	1946.3
45–47	211	21.4	1945.4	114	16.7	1938.7	512	16.4	1938.4	335	21.7	1943.7
48–50	90	19.7	1940.7	59	15.7	1934.7	235	15.6	1934.6	286	22.3	1941.3

DURATION												
0–2	176	22.8	1969	287	17.1	1967	375	19.8	1965	188	21.1	1967
3–5	248	22.5	1966	363	16.9	1964	579	19.0	1962	452	21.3	1964
6–8	227	21.6	1963	343	16.8	1961	640	18.2	1959	604	20.0	1961
9–11	218	21.1	1960	326	15.9	1958	627	18.1	1956	617	20.3	1958
12–14	206	20.4	1957	335	15.7	1955	498	17.7	1953	516	20.0	1955
15–17	242	19.8	1954	265	15.5	1952	514	16.7	1950	501	19.7	1952
18–20	192	18.8	1951	258	15.5	1949	392	17.2	1947	511	19.7	1949
21–23	157	17.4	1948	283	15.4	1946	331	17.0	1944	373	19.2	1946
24–26	139	16.6	1945	230	15.1	1943	262	15.7	1941	265	18.5	1943
27–29	75	15.5	1942	119	15.3	1940	180	14.8	1938	154	17.4	1940
30–32	2	13.5	1939	70	14.6	1937	80	13.3	1935	59	16.1	1937
33–35				26	13.6	1934	6	12.3	1932	19	14.5	1934
36–38												
39–41												
42–44												

NOTE: A blank cell indicates that there were no cases in the age group.

SOURCES: The four household surveys.

TABLE A2 Mean ages at marriage among women by place of current residence, place of birth, and duration of marriage: Korea, Malaysia, Pakistan, and the Philippines

Duration of marriage and place of birth	Present residence							
	Korea		Malaysia		Pakistan		Philippines	
	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
All durations	21.1	19.5	19.4	16.8	16.2	15.9	20.7	19.5
Urban birth	21.8	20.7	19.7	17.4	16.3	15.4	20.6	20.2
Rural birth	20.4	19.4	19.0	16.5	15.9	15.9	20.8	19.4
Duration 0–4 years	23.0	21.9	21.4	18.3	17.5	17.0	22.8	20.5
Urban birth	23.2	23.0	21.5	18.5	17.7	16.9	22.3	22.5
Rural birth	22.7	21.6	21.2	18.2	16.9	17.0	23.0	20.2
Duration 5–9 years	22.2	21.3	20.7	17.2	17.3	16.5	21.4	19.8
Urban birth	22.8	22.2	20.8	18.3	17.3	15.9	21.2	21.3
Rural birth	21.6	21.3	20.3	16.5	17.2	16.6	21.5	19.7
Duration 10–14 years	21.2	20.4	19.5	17.2	15.9	15.7	21.3	19.8
Urban birth	21.7	21.5	19.8	18.0	16.0	15.1	21.3	20.2
Rural birth	20.7	20.3	18.7	16.5	15.6	15.8	21.3	19.7
Duration 15–19 years	20.1	19.0	18.5	16.3	15.4	15.4	20.2	19.5
Urban birth	20.0	19.9	18.7	16.4	15.5	14.8	20.3	19.4
Rural birth	20.2	19.0	18.0	16.2	15.1	15.6	20.2	19.6
Duration 20 and more years	17.2	16.7	16.8	15.3	15.5	15.1	19.0	18.3
Urban birth	17.8	17.0	16.8	15.5	15.6	14.7	19.0	18.9
Rural birth	17.1	16.7	16.7	15.2	15.2	15.1	19.0	18.3

SOURCES: The four household surveys.

TABLE A3 Mean ages at marriage among females by current residence, duration of marriage, and literacy status: Korea, Malaysia, Pakistan, and the Philippines

	Urban						Rural					
Country and literacy category	All durations	0–4	5–9	10–14	15–19	20 and over	All durations	0–4	5–9	10–14	15–19	20 and over
KOREA												
Literate	21.4	23.0	22.3	21.3	20.3	17.4	20.3	21.9	21.4	20.7	19.3	17.2
Illiterate	19.0	23.7	21.9	19.8	18.4	16.9	18.2	22.1	20.9	19.8	18.8	16.5
MALAYSIA												
Literate	19.9	21.5	20.7	19.7	18.6	16.8	17.1	18.3	16.7	17.2	15.9	16.3
Illiterate	18.5	20.9	20.5	19.1	18.3	16.7	16.6	18.2	18.0	17.1	16.5	15.1
PAKISTAN												
Literate	17.4	18.7	18.4	16.7	16.1	16.4	16.6	17.8	17.4	15.9	15.8	15.9
Illiterate	15.7	16.6	16.7	15.6	15.2	15.2	15.8	16.9	16.4	15.7	15.4	15.0
PHILIPPINES												
Literate	20.8	22.7	21.5	21.4	20.5	19.1	19.5	20.2	19.9	19.8	19.4	18.3
Illiterate	19.1	22.9	19.7	20.3	18.5	18.3	19.4	21.4	19.4	19.6	19.9	18.4

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Two are not enough: the value of children to Javanese and Sundanese parents

Russell K. Darroch,
Paul A. Meyer,
and Masri Singarimbun

East-West Center
Honolulu, Hawaii

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PREFACE

This paper reports the findings of the Indonesian Value of Children Study, which was part of the second phase of the cross-national Value of Children (VOC) Project. Information on all the country studies in the project, their investigators, and their sources of funding is given in the editor's foreword to the first report in this series (Paper 60-A). The project received generous funding support from the Rockefeller Foundation.

We express our gratitude to the other investigators in the project, to the institutions that have supported our work (the Rockefeller Foundation, Gadjah Mada University, Padjadjaran State University, the East-West Center, and the Australian National University), and to our many colleagues and assistants who aided us in all phases of the study. In particular we wish to acknowledge the special contributions and support of the following individuals: Dr. Albert Nyberg (Rockefeller Foundation); the late Prof. Anwas Adiwilaga, Drs. Urip Suwarna, Drs. Hizbut Tauchid, and Drs. Djudju Djuariah Utja (Padjadjaran State University); Drs. Djamasri Adenan, Drs. Kasto, Dr. Valerie Hull, Drs. Laksono, Dr. Chris Manning, Mrs. Irawati Singarimbun, Drs. Sudjali, Drs. Sukarsih, and Drs. Sumitro (Gadjah Mada University); Prof. John C. Caldwell, Prof. Cecil Gibb, Mrs. Erica Fisher, and Mr. Rick Pickering (Australian National University). We also wish to thank the Indonesian Academy of Sciences for granting the permission to undertake this research project.

Finally we thank our respondents for their time, interest, and hospitality. We hope that for them, and their children, the information they supplied and ideas they inspired will make a useful contribution to improving the daily lives of Sundanese and Javanese alike.

Canberra, September 1980

R.K.D.
P.A.M.
M.S.

ABSTRACT The aim of this study was to collect information on the positive and negative aspects (values) of having children as perceived by 1,001 Sundanese and 1,031 Javanese currently married women who were living with their husbands and were between 15 and 40 years of age. Husbands of half of the women in each culture group were also interviewed. Structured interviews were used to collect basic sociodemographic information, data on number and relationship of children in the household, family planning attitudes and practices of respondents, awareness of population issues, family size and composition, and child loss. The primary focus of the study was on the perceived advantages and disadvantages of children, ages at which children cost the most, and qualities desired in children.

In general, Javanese respondents placed more emphasis on instrumental advantages of children and Sundanese on the psychosocial advantages; women placed greater emphasis on instrumental values than men. Javanese were more likely than Sundanese to view the primary advantage of children as assistance (particularly financial assistance) in old age; but in neither sample group was the expectation of assistance substantial, only about a third expecting "a great deal" of help. Both culture groups valued daughters for their help around the house. Psychosocial advantages were more varied than instrumental ones but accounted for a significant proportion of responses. Despite a lack of strong sex preferences, boys were seen as more valuable than girls for family descent concerns. Respondents strongly emphasized the idea that children provide love and companionship as well as various kinds of stimulation and happiness. Qualities desired in children were obedience, "good" character, and willingness to care for parents in their old age; expectations of old-age care were stronger among Sundanese than among Javanese respondents.

On the negative side, children were seen as entailing substantial financial costs, in particular education and health costs. For most respondents the emotional costs of children were major disadvantages; these included worries about children's health and the possibility that they might die, the trouble and bother of childrearing, and worries about the children's future. On the other hand, respondents placed relatively little emphasis on opportunity costs, and there was virtually no concern about overpopulation as a consequence of having children.

Three special topics are also addressed in the report. One concerns *attitudes toward family planning. The data show virtually universal knowledge of contraception but less prevalent practice, with about a third of respondent couples practicing some form at the time of the survey. Approval of contraception was conditional; few approved of it to delay the birth of a first child, but larger proportions approved of it to space births and terminate childbearing. Concern about overpopulation appears to have played a minimal role in these attitudes. Media exposure, education, and parity proved to be the major predictors of family planning attitudes, but the weighting depends on the analysis selected. The second major topic is the experience of child loss. Rural respondents were more likely than urban to have experienced loss, and Sundanese were more at risk than Javanese, though no clear basis for the latter difference is discernible in the data. As expected, older, higher parity women were more likely than others to have lost children, but in all age and parity groups the levels of loss were substantial. Few strong patterns emerge between loss experience and perceived advantages or disadvantages of children. Interesting patterns exist, however, and are discussed. The third special topic concerns desired and ideal family sizes. Using various measures, we found desired and ideal family sizes to be in the range of three to five children, with between 60 and 70 percent of respondents preferring such a family size. Preference for fewer than three children was slight and tended to reflect actual fertility experience of older women rather than intent on the part of young respondents. Women married less than five years were most likely to state preferences for three and four children.*

The prospects for a two-child norm among Sundanese and Javanese are discussed and, in view of the findings presented, judged to be poor in the foreseeable future. Particular concerns for policy center around the evidence that social and emotional values ascribed to children are substantial and entrenched. Furthermore, child mortality appears still to play a major role in the perceptions of couples when they consider not only the planning of their families but also the advantages and costs of children. Public awareness of population growth as a problem seems minimal. Finally, the need for a variety of research strategies and coordination with national planning is discussed.

Indonesia is the world's third largest developing country after China and India, and like those two countries it has a moderate (albeit declining) rate of population growth coupled with only modest recent advances in the social and economic spheres (Mauldin and Berelson, 1978). Geographically, Indonesia comprises an archipelago stretching about 5,000 kilometers along the Equator. It includes many diverse ethnic and linguistic groups whose main common characteristic prior to World War II was colonial domination by the Netherlands. Since Independence the national government has struggled against great obstacles to unify the country politically and economically. Development efforts have identified excessive population growth and maldistribution of the population as national problems, and programs have evolved to overcome these.

The island of Java sits in the center of Indonesia, not only geographically and administratively but also by virtue of the sheer size of its population: 85 million people (out of the 1976 estimate of 135 million nationwide) are crowded into its area of 132,000 sq. kms. The resulting overall density of nearly 650 persons per sq. km., one of the highest in the world, is due not only to the presence of large urban areas, but also to densities in some rural districts of the island well in excess of this figure. The adaptations of the residents of such areas have been described as "agricultural involution" in a classic study by C. Geertz (1963). Events of more recent times have caused some changes in the conditions of "shared poverty" delineated by Geertz; but for the vast majority of the people of Java, urban and rural, the essential facts remain unchanged. The thin line between having just enough to survive and support one's family, and having to do without some necessities of life, is all too apparent.

Despite the crowded conditions and meager existences of the people of Java, there is diversity on the island. Geographically, ethnically, and politically Java can be divided into three areas roughly equal in size and population: West Java, including the national capital of Jakarta; Central Java, including the special territory of Yogyakarta; and East Java, which incorporates the island of Madura. Except for the residents of Jakarta, who come from all parts of the country, a majority of the inhabitants of West Java are Sundanese. The Madurese occupy their home island and parts of East Java, particularly along its north coast. Central Java and the southern parts of East Java are the homelands of the Javanese ethnic group. The three ethnic groups are distinguished from each other primarily by language; although related, their languages are mutually unintelligible. Other differences appear to be more of degree than of kind. For example, among the Javanese interpersonal relationships and speech patterns are hierarchical, but so are they to a lesser degree among the other two groups. Islam is the main religion of all three, but strict adherence to religious rituals–observing daily prayers and the fasting month, and avoiding pork–is less prevalent among the Javanese (Peacock, 1973:94–101). Perhaps the greatest difference between the groups is ecological: The highest population densities are found among the Javanese, who occupy most parts of the island suited for intense cultivation of wet rice (H. Geertz, 1963:41). The Sundanese are also primarily wet-rice farmers, but their area is more mountainous and thus less supportive of high densities. The island of Madura and parts of East Java have a much drier climate than West or Central Java, and this also limits their agricultural practices and population densities.

The growth of population on Java has not followed the pattern, considered typical of less developed areas of the world, of recent high rates due to lowered mortality, which in turn resulted from the introduction of political stability, improved food supplies, and improved public hygiene accompanying European penetration. Growth rates have been in the past and remain today rather moderate by contemporary standards: between 1 and 2 percent per annum. At times, of course, catastrophic events have caused them to decrease markedly, the most recent being World War II, when growth rates fluctuated around zero owing to increased mortality; but the general trend for the past few centuries has been steady, moderate growth. Hull et al. (1977:4) have estimated that at the turn of the century there were just under 30 million inhabitants, or about a third of the present population eight decades later.

Although early observers recognized the importance placed on children as sources of wealth for parents in Java (H. Geertz, 1961; White, 1976:71 ff.), actual research on the value of children in the family and community has been conducted in Java only in the last few years. Studies by T. Hull (1975), White (1976), and Sugito (1976) focusing on single Javanese communities have gathered data on the measurable contributions of children to the family income and on the financial outlays entailed in bearing and raising children. Saefullah (1979) investigated the attitudes of parents concerning childbearing in a Sundanese tea-estate community. The Value of Children Study described here also gathered information through interviews with parents on their attitudes toward various aspects of bearing and raising children, but was not limited to a specific community.

The primary aims of the study were fourfold. First, we determined that baseline data on attitudes and perceptions of the value of children in an Indonesian context were needed. Second, the data collected were expected to contribute to the larger, cross-national project on the Value of Children, even though the study could not feasibly be conducted as a nationally representative sample. Third, comparisons could be made between several of the distinct cultural groups in Indonesia who may have differing perceptions of the benefits and costs of children. Finally, particular aspects of social patterns in Indonesia that might affect fertility and family planning behavior–lack of family name, high population density, widespread poverty, relatively high infant mortality–could be examined. Because of these aims, and because of logistical considerations, we decided to restrict the study to Java and to an examination of the two largest ethnic groups of the country, the Sundanese and Javanese.

Subsequent sections of this report cover the methods of the study, the major findings, a discussion of several particular variables in some detail, and the main implications of the study. The first of these sections gives more information on procedures followed and the characteristics of the resulting sample than would otherwise be considered necessary in a summary report such as this, but we decided to include these details here because few studies of this nature have been published about Indonesia. The section on major findings is subdivided according to seven identified "dimensions" of the value of children explored in the study, with an eighth subsection summarizing rural-urban, husband-wife, and Sundanese-Javanese contrasts. Special topics covered in the fourth section are the relationships between attitudes toward having additional children and attitudes toward family planning, the effects of child loss on the value of children, and differences in desired family sizes. The final section speculates on the prospects for a two-child family norm in Indonesia and outlines the research needed to gain further understanding of this aspect of population change in Indonesia.

METHOD AND SAMPLE

Sample design

Because a primary aim of the study was to make comparisons between the Sundanese and Javanese cultural groups, equal-size samples of 1,000 households each were selected from both West Java (the Sundanese culture area) and Central Java (the Javanese heartland). The sample within each cultural area was again equally divided into two geographic areas of 500 households each. Within each geographic area, 20 percent of the households were selected from the urban center and 80 percent from the rural hinterland. In West Java, the urban areas selected were Bandung municipality and the city of Tasikmalaya; the rural areas were the regencies of Bandung and Tasikmalaya. In Central Java, the urban areas chosen were Solo (Surakarta) and Salatiga; their respective rural areas were not defined by regency boundaries but were the subdistricts that comprised the natural hinterland for each city (see Map). These four areas have different population sizes (Table 1) but are treated with equal weight in this report. Major differences between the areas and between their rural components will be specified, but most of the tabulations combine the two West Java geographic areas and contrast them with the two combined Central Java areas.

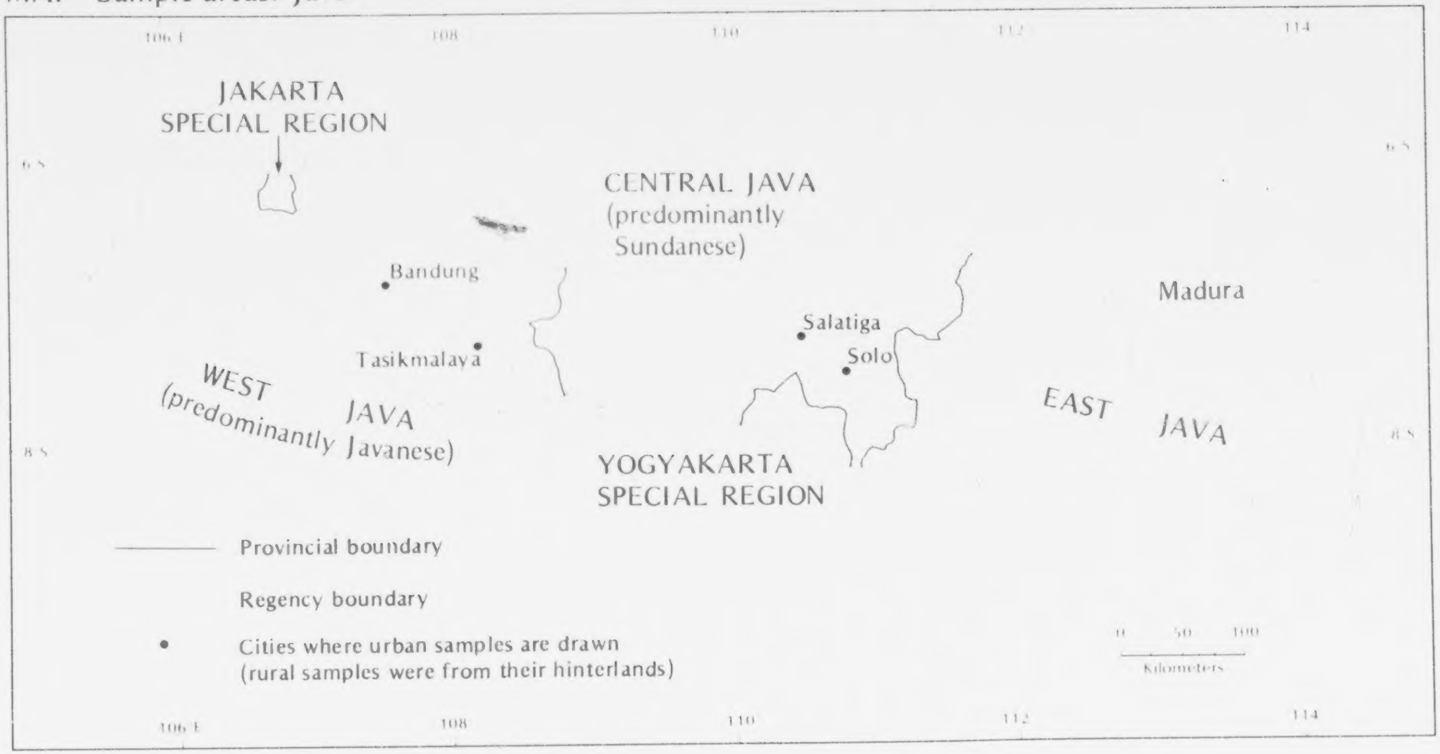
The method of selecting administrative units within each geographic area differed between the rural and urban locations, but both selection patterns were designed to reflect a cross-section of socioeconomic statuses. In the rural areas it was possible to group all the subdistricts within each geographic area into three strata—high, medium, and low—using data on agricultural density, road distance from urban center, proportion of the labor force in agriculture, proportion of the labor force in commerce and industry, and proportion of agricultural land under irrigation. Two subdistricts were randomly selected from each stratum, and then a similar process was used to select three villages in

TABLE 1 Population of sample areas (1971 Census)

Area	Urban center	Rural hinterland
WEST JAVA		
Bandung	1,202,730	1,974,614
Tasikmalaya	135,919	1,177,487
CENTRAL JAVA		
Solo	414,285	1,232,988
Salatiga	69,831	725,805

SOURCE: Indonesia, Central Bureau of Statistics, Census Bureau (1972).

MAP Sample areas: Java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JAKARTA SPECIAL REGION
CENTRAL JAVA (predominantly Sundanese)
Bandung
Tasikmalaya
WEST JAVA (predominantly Javanese)
Salatiga
Solo
YOGYAKARTA SPECIAL REGION
Madura
EAST JAVA
Provincial boundary
Regency boundary
Cities where urban samples are drawn (rural samples were from their hinterlands)
0 50 100
Kilometers

each subdistrict, giving a total of 18 rural villages in each geographical area. The household list kept by the village head in each selected village was then used as the sampling frame to select 23 households, by means of systematic sampling with a random start, yielding a target sample of 414 households in each rural area. In each urban area, three subdistricts were selected, one from each socioeconomic stratum (high, medium, low). The lack of socioeconomic data on administrative units within cities meant that the stratification and selection of the subdistricts had to be based on the judgment of city officials. Within each selected subdistrict, we randomly selected one ward, and then selected households within the ward by systematic sampling with a random start, again using as a sampling frame the list of households kept by the ward head. The lists were edited to exclude families whose household head was not Sundanese in the West Java cities or Javanese in the Central Java cities. The number of households sampled in each ward was determined by the proportion of the city's population estimated to be in the socioeconomic stratum represented by the ward; these estimates were of necessity also based on information supplied by city officials. A total of 100 households was the target sample in each urban area.

Eligible respondents in both rural and urban areas were married women below age 40 who were currently living with their husbands. In addition, the husbands of eligible women in every other selected household were interviewed to form the male sample, which was thus about half the size of the female sample. In an attempt to interview enough respondents in each area to achieve the target size of the sample, we allowed substitution for households where interviews could not be conducted because of refusals, ineligibility (including inappropriate cultural background), or failure to make contact after three attempts. Substitutions consisted of the next household on the list or (if necessary) the previous household. Failure to make contact with the selected household was reported by the field supervisors as a significant problem in urban areas. Outright refusals were rare and again mostly confined to the urban areas. The survey teams in the rural areas had the advantage of close cooperation by village officials in helping to explain the nature of the survey to the selected households. A small number (28) of returned questionnaires were rejected from the final tabulations because they were incomplete or had internal inconsistencies. The final sample shown in the tables in this report consists of

1,001 wives and 496 husbands in West Java and 1,031 wives and 495 husbands in Central Java.

Questionnaire, interviewing, coding

The survey was conducted in cooperation with researchers in seven other countries, and utilized the core questionnaire developed specifically for this second phase of the Value of Children project. The core questionnaire is described in the editor's foreword to the publication series in which this report appears (Bulatao, 1979). Only one country-specific question was asked in Indonesia, concerning the number of wives of male respondents. Under Islamic law, as applied in Indonesia, a Muslim man may have up to four wives. In the sample, seven men reported having two wives and one reported having four wives.

The questionnaire was translated first from English into Indonesian, and then from Indonesian into the two local languages, Sundanese and Javanese. Back-translations from the local languages into English were also made, but owing to time pressures these were completed after the interviewing was finished so that the few errors in the original translations could not be corrected. One section of the questionnaire, regarding the most important values in life and whether or not children provide these values, was sufficiently erroneous in translation that it had to be excluded from subsequent analysis.

The field work for tne survey took place simultaneously in West Java and Central Java. Recruitment, training, and supervision of the interviewers were done in West Java by the Institute for Social Research, Padjadjaran State University, Bandung, and in Central Java by the Population Institute, Gadjah Mada University, Yogyakarta. The Population Institute had overall responsibility for the project and coordinated the activities of both institutions to ensure comparability of the resulting data. The interviewers were for the most part graduate students or recent graduates of the two universities, and all of them participated in two-week training programs at the respective institutes. At the completion of the training programs, in mid-February of 1975, groups of interviewers numbering from 12 to 16 were sent to each of the four urban areas to conduct the survey. In all cases interviewers were of the same sex as the respondents in order to minimize embarassment of respondents. Field workers reported few instances of refusals by selected households to be included in the study, nearly all of these being in urban areas. Interviews were conducted in the local language

(Sundanese or Javanese) but responses were written down in Indonesian for ease of checking and coding; all interviewers were fluent in both the local language and Indonesian. Interviews were conducted in the respective rural areas after completion of the urban survey, and all field work was finished by the end of April 1975. Most of the completed questionnaires were checked and edited in the field by one of the supervisors assigned to each team of interviewers, so that return visits to some respondents could be made in cases where errors had been detected.

Coding was done at the Population Institute in two phases. The first covered the structured items in the questionnaire and the second involved content analysis of the open-ended questions using a translation of the coding framework developed for the survey by the Institute for Social Research, University of Michigan. In both phases all items were coded independently by two coders and were then checked by a supervisor. A team of four senior researchers made final consistency checks on all of the open-ended items. Computer processing of the data was done at the Australian National University and tabulations were sent back to the Population Institute for analysis and the preparation of a preliminary report (Singarimbun, Darroch, and Meyer, 1977).

Quality of the data

Apart from the problem associated with the translation of the core questionnaire mentioned above, other issues involving the interview situation, form of the questions, and sampling arose that have had some influence on the interpretation of the results of the survey.

The first of these issues concerns the conditions of the interviews, information about which was written down at the end of each interview by the field worker. These data suggest that in both West and Central Java it was difficult to conduct a private interview, and that in most of the situations (78 percent in West Java, 88 percent in Central Java) at least one other person was present during some part of the interview. Often this "other person" present was one of the respondent's children (51 percent of the interviews in West Java, 69 percent in Central Java), but in a substantial number of instances the respondent's spouse was present (38 percent in West Java, 55 percent in Central Java). Furthermore, the interviewers reported that about 17 to 21 percent of the respondents in both areas were assisted in answering some of the questions. In many cases the prompters were husbands answering for their wives, especially in households where only wives were interviewed. In households where both partners were selected for inclusion in the sample, an attempt was made to interview them simultaneously. Although the extent of help from other persons was not recorded on the interview schedule, subsequent discussion with the field assistants indicated that the help was usually limited to questions to which the respondent initially gave hesitant or uncertain answers, and especially to questions requiring numeric responses. In only a few cases were the respondents dependent to a great extent upon other persons for their answers. It should be noted that the presence of others during the interview reflects the norm for the cultural setting and that extreme measures to assure a private interview would have engendered more problems of rapport and cooperation than accepting their presence.

Another problem arising from the interview situation that must be considered in assessing these data is the different average lengths of the interviews recorded in West Java (80 minutes) as opposed to Central Java (120 minutes). These averages varied between the different geographic areas within each region and between urban and rural areas (Table 2). We anticipated that the urban interviews would take more time than the rural because the urban areas were surveyed first and thus the interviewers would not have had much experience with the questionnaire. We also expected interviews with wives to be longer than those with husbands because some questions were asked only of wives; this expectation was borne out in all of the survey sites except

TABLE 2 Mean interview length (in minutes), by urban/rural location and sex of respondents

	West Java		Central Java	
Location and sex	Bandung	Tasikmalaya	Salatiga	Solo
URBAN	87	81	135	134
Wives	86	80	142	135
Husbands	90	83	120	131
RURAL	84	74	110	120
Wives	86	74	113	122
Husbands	80	72	105	117
Grand mean	80		119	

the two urban areas in West Java. Differences between the individual geographic areas may be due to rules of etiquette that had to be observed by interviewers in the various locales upon entering the home and before beginning the actual questionning, or to such circumstances as the tendency for village officials in some areas to accompany the interviewers and make introductions. It is possible that interviews among the Javanese respondents in Central Java took more time because of the greater amount of formalities to be observed in Javanese than in Sundanese social relations. Finally, the educational levels of the Javanese respondents were much lower than those of the Sundanese sample, and thus it probably took longer to explain some of the more difficult parts of the questionnaire to those respondents. Whether these possibilities are sufficient to explain the overall difference in mean length of interview between the two areas is difficult to ascertain, but it does give some idea of sources of variability in the interviews in the two regions.

As with similar social research in Indonesia, one of the major problems faced in analyzing the data from this survey was constructing an adequate index of socioeconomic status for the sample. The first question that arose was: What constitutes social and economic status in these parts of Java? Data were obtained in the survey on respondents' education, income, and occupation—the three components of many such indices—but there were no questions about land ownership and control, important indicators of status in rural areas. To have added questions regarding land ownership and control that would have yielded satisfactory results would probably have increased considerably the time needed for the interview, and there is no guarantee that all of the female respondents could have given accurate information on this topic. Attempts to use the other three indicators (education, income, occupation) to construct an index have not been very successful, mainly because of the variation between the subsamples (West and Central) in education and income. We found the respondents' level of schooling to have a significant effect in cross-tabulations with various attitude questions in the survey, and thus much of the analysis in this report uses the education variable.

A final comment regarding the quality of the data in the survey is that care was needed when data were aggregated above the level of the geographic areas. This was so because observed differences in some of the basic characteristics of the sample indicate that the sample selected in West Java, particularly in the Bandung area, was much wealthier and more highly educated than one would expect.

Characteristics of the respondents

Basic demographic and socioeconomic characteristics of the sample are shown in Tables 3 and 4 respectively. From these tables comparisons can be made between the Javanese (Central) and Sundanese (West) subsamples, and between wives and husbands. We have not shown here in detail other contrasts such as urban and rural; those tabulations have been published previously (Singarimbun, Darroch, and Meyer, 1977) and are mentioned here where appropriate. More extensive discussion of other elements of the data will be presented in later reports.

The data on age, age at marriage, and period since first married (Table 3) are based on direct questions about date of birth and year when first married. Many Javanese know their day and month of birth and of marriage according to a traditional system based on a combination of the Islamic, Gregorian, and Javanese calendars, and the Sundanese also can reckon dates by a similar system; but many of the respondents, especially those with little education, had difficulty in stating their year of birth in the Gregorian calendar. An exception to this was the group of Sundanese respondents living in areas with Islamic schools (*pesantren*), where knowledge of birth dates according to the Islamic calendar was common. The interviewers had been trained in the techniques of estimating year of birth by using references to known events or by converting dates from the Islamic or Javanese years, but the data on year of birth show some irregularities. A comparison of the distribution of age in single years for the female respondents indicates that the Javanese women tended to report an estimated *age* to interviewers, with a strong preference for ages ending in 0 and 5, whereas the Sundanese tended to report an estimated *year* of birth, with a preference for years ending in 0 and 5. When ages are calculated by subtracting year of birth from 75 (the year of the survey), however, the heapings around age- and year-of-birth preferences are put into the same five-year age category. The conclusion must be reached that these data on age are indicative only, but that differences between Javanese and Sundanese age and sex groups may be real because the errors in each group probably are in similar directions.

The median ages for wives in each locality were recorded at close to 30 years, and for husbands at 35 years (except for men in the urban

TABLE 3 Demographic characteristics of respondents
(Percentage distribution of respondents, by sex and cultural group)

	Wives		Husbands	
Characteristic	Sundanese	Javanese	Sundanese	Javanese
Age in 1975				
<20	4	2	0	0
20–24	20	15	5	3
25–29	27	23	15	11
30–34	24	29	24	24
35–39	25	31	23	25
40–44	0	0	19	21
>44	0	0	13	17
Total %	100	100	99	101
Number of respondents	1,001	1,031	496	495
Median age	29.3	30.8	35.2	36.2
Age at first marriage				
8–14	15	25	0	0
15–17	53	45	9	9
18–20	23	23	33	32
21–24	7	5	34	30
25–29	2	2	21	23
>29	0	0	3	6
Total %	100	100	100	100
Number of respondents	1,000	1,031	491	491
Median age	16.6	16.0	21.1	21.5
Number of times married				
Once	80	84	76	78
Twice or more	20	16	24	22
Total %	100	100	100	100
Number of respondents	1,000	1,031	496	495
Number of years since first married				
0–5	18	10	13	12
6–10	25	19	24	18
11–15	25	26	26	24
16–20	21	28	17	22
>20	11	17	20	24
Total %	100	100	100	100
Number of respondents	1,000	1,031	491	491
Median number of years	12.0	14.6	12.9	14.9
Number of own living children				
0	5	7	4	6
1	16	15	14	15
2	19	19	19	19
3	17	19	18	19
4	15	14	15	15

TABLE 3 *(continued)*

Characteristic	Wives		Husbands	
	Sundanese	Javanese	Sundanese	Javanese
Number of own living children *(continued)*				
5	12	12	13	12
6	7	6	7	6
7+	9	7	11	7
Total %	100	99	101	99
Number of respondents	1,001	1,031	496	495
Median number of children	3.1	2.9	3.2	3.0
Number of deceased children				
0	60	64	58	65
1	20	22	23	20
2	11	8	10	10
3+	9	6	9	6
Total %	100	100	100	101
Number of respondents	999	1,031	491	495
Mean number of deceased children	0.8	0.6	0.8	0.6
Wanted more children?				
Yes	41	45	42	43
No	57	52	57	55
Uncertain	2	4	2	2
Total %	100	101	101	100
Number of respondents	1,000	1,031	496	495
Desired family size[a]				
0	*	*	*	*
1	1	1	1	1
2	8	8	6	8
3	21	24	20	23
4	29	27	27	28
5	18	20	19	21
6	12	10	11	10
7+	12	10	15	8
Total %	101	100	99	99
Number of respondents	968	978	478	474
Mean desired size	4.5	4.4	4.6	4.3
Ideal family size[b]				
0	0	0	0	0
1	*	*	2	1
2	8	8	9	9
3	23	27	30	31
4	42	34	34	32
5	14	19	18	20
6	9	8	5	5

TABLE 3 *(continued)*

Characteristic	Wives		Husbands	
	Sundanese	Javanese	Sundanese	Javanese
Ideal family size[b] *(continued)*				
7+	3	4	3	2
Total %	99	100	101	100
Number of respondents	899	936	464	450
Mean ideal size	4.0	4.1	3.9	3.9
Currently using contraception?				
Yes	34	38	33	39
No	48	46	52	44
Pregnant	15	13	14	12
Had never heard about contraception	3	3	2	4
Total %	100	100	101	99
Number of respondents	995	1,031	496	495

NOTE: Percentages may not sum to 100 because of rounding.

* Less than 0.5 percent.

[a] Desired family size (that is, desired number of children) was based on the question "How many more children would you like to have?" (for those wanting more children) or "How many in all would you have preferred?" (for those who would have preferred fewer).

[b] Ideal family size (ideal number of children) was based on the question "If you were to start your family over again, how many children would you want to have?" It was not asked of childless respondents.

Solo sample, whose median age was almost 39). The higher ages for the husbands in the Solo sample resulted from their higher age at first marriage. Both female groups had median ages at first marriage close to the minimum legal age for marriage, established in 1974, of 16 years. Urban-rural differences on this variable were pronounced, with urban females marrying about two years later than rural ones, and urban males about four years after their rural counterparts.

The Javanese and Sundanese are widely known for their high rates of divorce, which are reflected in the data on number of times married. Nearly one-fourth of rural husbands and one-fifth of rural wives reported having been married twice or more. Urban marriages seem more stable, and only about 10 percent of wives and husbands in those areas reported being married more than once. It should be noted that these data do not record all cases of divorce in the surveyed households, as persons currently divorced or separated were excluded from the sample. The data on years since first married represent marital duration for only that proportion of the sample that had been married

TABLE 4 Socioeconomic characteristics of respondents
(Percentage distribution of respondents, by sex and cultural group)

	Wives		Husbands	
Characteristic	Sundanese	Javanese	Sundanese	Javanese
Religion				
Moslem	100	92	100	91
Other	*	8	*	9
Total %	100	100	100	100
Number of respondents	1,001	1,031	496	495
Education (years of schooling completed)				
0–2	13	61	7	41
3–5	29	17	28	23
6–8	39	13	30	18
9–11	10	5	15	7
12+	9	4	20	11
Total %	100	100	100	100
Number of respondents	999	1,031	496	495
Mean number of years	5.9	2.7	6.1	3.4
Occupation[a]				
None or not working	64	37	2	1
Labor (skilled or unskilled)	9	5	17	11
Agriculture	10	23	32	66
Commerce, trading	13	33	17	4
Civil service	4	3	32	18
Total %	100	101	100	100
Number of respondents	1,001	1,031	496	495
Urban/rural experience				
Urban only	11	13	5	11
Rural only	60	75	43	70
Both	28	12	52	19
Total %	99	100	100	100
Number of respondents	970	1,020	489	491
Newspaper reading habits				
Every day	14	3	23	8
Few times/week	15	3	19	6
Rarely	29	11	34	17
Never	42	83	24	69
Total %	100	100	100	100
Number of respondents	1,000	1,031	496	495
Listen to news on radio or television?				
Every day	41	16	61	17
Few times/week	13	5	15	12
Rarely	25	33	19	41

TABLE 4 *(continued)*

	Wives		Husbands	
Characteristic	Sundanese	Javanese	Sundanese	Javanese
Listen to news on radio or television? *(continued)*				
Never	21	46	5	31
Total %	100	100	100	101
Number of respondents	1,001	1,030	496	495
Type of family				
Nuclear only	77	71	nc	nc
Older generation present	6	13	nc	nc
Other	17	16	nc	nc
Total %	100	100		
Number of respondents	996	1,028		
Level of monthly per capita household expenditure[b]				
High	56	25	nc	nc
Medium	33	51	nc	nc
Low	11	24	nc	nc
Total %	100	100		
Number of respondents	985	1,019		
Median (in Rp.)[b]	2,500	1,500		
Mean (in Rp.)[b]	3,180	1,880		

NOTE: Percentages may not sum to 100 because of rounding.

nc—not calculated.

* Less than 0.5 percent.

[a] For wives, occupation since first married; for husbands, current occupation.

[b] For urban residents, rupiah (Rp.) 3,000 or more was considered a high level of expenditure, Rp. 1,500–2,999 a medium level, and less than Rp. 1,500 a low level. For rural residents high, medium, and low levels of expenditure were Rp. 2,000 or more, Rp. 1,000–1,999, and less than Rp. 1,000 respectively. In 1975 Rp. 415 = US $1.

only once. On average the Javanese sample reported being married about two years longer than the Sundanese, the difference resulting from slightly older current ages and (for wives) slightly younger ages at marriage.

Despite the shorter average periods since first marriage, the Sundanese sample reported higher numbers of both living and deceased children, indicating higher fertility among this group compared with the Javanese sample. Interestingly, in three of the four geographic areas urban respondents (both male and female) reported more living children on average than those in surrounding rural areas. The rural sample, however, reported higher numbers of deceased children, so that total numbers of children born were roughly similar between urban and rural areas. The proportion of respondents in all areas having experienced loss of a child was very high, nearly 40 percent overall. Among female respondents, 26 percent of the urban Javanese and 30 percent of the urban Sundanese reported having lost at least one child, and the figures for the corresponding rural areas were about 12 percent higher still (38 and 43 percent). In this survey, as in others (McDonald et al., 1976:68; Indonesia, Central Bureau of Statistics, 1978:64; White, 1976:371), it is not clear why the Sundanese sample experienced more child mortality, because by socioeconomic criteria the Sundanese sample can be considered wealthier and more educated. It may be that access to health facilities is easier in Central Java owing to the topography of the study areas. A relationship exists in these data between level of child mortality and rural terrain, with fewer wives from the two plateau-plains areas (Bandung and Solo) reporting child deaths (39 and 32 percent) than women from the more mountainous areas around Salatiga and Tasikmalaya (45 and 46 percent).

Another factor that may explain these differences is indicated by the distribution of child loss by period since first married (Table 5). The Sundanese wives had more child mortality than the Javanese at each level of marital duration; and the difference was most pronounced for those marrying before 1955, when West Java suffered severe disruptions from secessionist movements. The extent to which other factors such as infant feeding patterns and regional nutritional deficiencies

TABLE 5 Percentage of wives in each cultural group reporting loss of at least one child, by number of years since first married

No. of years since first married (1)	Sundanese (2)	N	Javanese (3)	N	Difference between Sundanese and Javanese (2) − (3)
0–5	15	175	8	102	8
6–10	31	251	22	198	9
11–15	44	248	40	269	5
16–20	54	214	45	286	8
>20	61	111	47	176	15
Total	40	999	36	1,031	4

NOTE: Percentages for Javanese and difference may not sum to percentage for Sundanese because of rounding.

affected the rates is not known. A more detailed examination of respondents who experienced child loss and its effects on their attitudes to children is presented in the section on special topics.

Another important demographic variable divides the sample along lines similar to that of child loss—the proportion wanting to have another child. Over 40 percent of all respondents stated that they wanted at least one more child, differences between husbands and wives being negligible in most locations. Rural-urban differences were marked only in the Salatiga subsample, where over 50 percent of the respondents in the rural area indicated a desire for more children, compared with about 40 percent in the urban area. Surprisingly, few respondents (3 percent of wives and 2 percent of husbands) were recorded as "uncertain" on this question. Furthermore, all but a similarly small proportion of the respondents were able to give some number of children they would like to have (if desiring more children) or would have preferred (if not desiring more children and not satisfied with the number they had at the time of the interview). This measure of desired family size shows that nearly 70 percent of all respondents wanted to have three, four, or five children and that less than 10 percent wanted two or fewer, with means ranging between four and five. The background and implications of these data will also be discussed in greater detail in the section on major findings.

In contrast to the data on desired family size are those on ideal family size, determined by a question (placed later in the interview schedule) on what number of children respondents would have if they were to begin their family again. That respondents gave a figure on average about one-half child less than they did to the earlier question probably indicates that many of those with large families were satisfied with their current family size but would do things differently if given a second chance.

Levels of contraceptive use reported by the respondents were high; about one-third of the couples in West Java stated that they were currently doing something to prevent pregnancy, and even greater use (38 percent) was reported by those in Central Java (Table 3). These figures were higher than current use rates for those regions reported at that time by the national family planning program (Singarimbun, Hull, and Meyer, 1978). The low levels shown in Table 3 of those who had never heard about contraception indicate that the national family planning program has been very successful in educating nearly all of the population about the availability of alternatives to further childbearing. Current use of contraception was slightly higher in all urban areas of the sample than in the adjacent rural areas, but there were no great differences between the two areas in respect to knowledge about the subject.

Greater differences between the Sundanese and Javanese samples are indicated in Table 4, on socioeconomic characteristics, than are evident in the comparison of demographic characteristics in Table 3. The Sundanese area is known to be strongly Islamic, and nearly all respondents there claimed to be Muslim. The non-Muslims in the Central Java survey areas, nearly all of whom were Christians, were residing primarily in the two urban areas. (Between one-fifth and one-quarter of the urban respondents stated that they were Christian.) Furthermore, although no questions were asked to elicit respondents' degree of "religiosity" or adherence to religious practices, it is likely that many of the respondents in Central Java who claimed to be Muslims had only nominal connections to that faith, in contrast to the wider adherence of the Sundanese Muslims in West Java to the precepts of Islam.

More important for this study were the higher levels of education among the Sundanese respondents than among the Javanese; 58 percent of Sundanese wives reported having completed primary school (six years or more), compared with only 22 percent of Javanese women, whereas for husbands the comparable figures were 65 and 36 percent. Although historically educational levels in the Sundanese heartland (Priangan) have been higher than in other parts of West Java, the educational levels of the present sample were somewhat higher than would be expected from census data. (Unpublished tabulations based on the 1971 Census show that among married women of ages 15–39, 46 percent in the Bandung-Tasikmalaya area and 20 percent in the Solo-Salatiga area had completed primary schooling.) At the bottom end of the scale, many more Javanese respondents than Sundanese had less than two years of education, and persons in Indonesia with less than two years' education can be considered to be nonliterate. Sharp differences between rural and urban areas are also evident on this variable, the urban Javanese being closer to their Sundanese counterparts than was the case for the rural residents.

The differences in respondents' literacy is reflected in the differences in their newspaper reading habits. Many more Sundanese (especially men) than Javanese claimed to read a newspaper regularly. Newspapers are generally not available in rural areas of Java, and therefore it is not surprising that readership in those areas lagged behind that of the urban centers. Differences in hearing news from radio or television were still marked between urban and rural areas and between Sundanese and Javanese, but were not as strong as the newspaper readership differences. Interestingly, the proportions of respondents stating that they owned a radio (63 percent in West Java, 36 percent in Central Java) were greater than the proportions claiming to listen daily to news broadcasts. This finding suggests that in future studies the interview should determine which items on a checklist of consumer durables are in working order.

Two other characteristics measured in the survey that are related to education are occupation and income, the latter measured here by level of family expenditure. Median household expenditures (per capita, monthly) for the Sundanese sample were about rupiah (Rp.) 2,500–equivalent to US $6.00–as opposed to Rp. 1,500 (US $3.60) for the Javanese; mean household expenditures were somewhat higher. These differences are consistent with other data indicating that West Java is more prosperous than other parts of the island, and they reflect the different educational and occupational patterns of the two samples. Sajogyo (1976) has estimated poverty lines for Java in rice equivalents as being 20 kilograms per person per month in rural areas and 30 kg. per person per month in urban areas; at Rp. 100 per kg. of rice (1975 price), the data indicate that 75 percent of the Javanese and 44 percent of the Sundanese respondents were living below the poverty line at the time of the survey. The low level of expenditure in Table 4 indicates respondents whose monthly per capita expenditures were below one-half of the poverty line and who theoretically did not purchase enough calories to sustain life. Of course, it is difficult for rural respondents to estimate their real expenditures because in many cases they grow part of their own food supplies and some other portion is probably provided by barter exchange, but the data nonetheless reflect the impoverished condition of many of the people on Java.

Even more closely related to education are the data on occupation, which, however, do not apply to the large numbers of female respondents (particularly Sundanese wives) who had not worked since marriage. Relatively few Sundanese men in the sample reported that they worked in agriculture, either as farmers or as sharecroppers or farm laborers, a finding that reflects the educational levels of this group. Even among the rural Sundanese men fewer than half worked in agriculture, compared with over 80 percent of the rural Javanese men. Nearly half of all the Sundanese men worked in trading, business, the civil service, or the military; only 22 percent of the Javanese men reported these occupations. Among wives more Javanese than Sundanese women reported working in trading and agriculture. It is common for Javanese women to work in such activities to help support the family financially, but these data indicate that such was not the case among the Sundanese. This finding may be partly attributed to the higher educational and income levels in the West Java sample, but it is probably also part of an underlying cultural pattern in both areas: Javanese wives, particularly those from low-income families, are expected to work in some capacity to increase the family's income, whereas the ideal wife in the Sundanese family is one who remains at home to do the housework and take care of the children.

Two final characteristics that require some comment are the family types and rural-urban experiences of respondents (Table 4). The nuclear family was clearly the norm for both samples, but the detailed tabulations reveal that this pattern was weaker in all of the urban areas, probably as a result of rural-to-urban migration and urban housing shortages. Large-scale movements in the past between rural and urban areas in West Java are indicated by these data on rural-urban experience, particularly for the men. The data are indicative of the civil disruptions in that part of the island following the Declaration of Independence in August 1945, and also indicative of the higher educational attainment of the Sundanese rural males, many of whom probably lived in a city to complete their formal schooling. The extent to which the large proportion of Sundanese men with both rural and urban experience also reflects regional unemployment rates is not known.

MAJOR FINDINGS

In a discussion of the economic value of children in rural Java, T. and V. Hull (1977) mention four things children provide that make them positive assets to the household: direct material contributions, household services, family security, and social prestige and power. Using data from the Hulls' own study of a community near Yogyakarta and from another investigation by White (1976), they show that adolescents, especially those not in school, do adult levels of income-producing work—tasks that contribute materially to the household economy such as working in family enterprises, tending livestock, or working outside the family for wages. At younger ages girls work at such tasks for more hours on average than do boys, mainly because the latter are more likely to be in school. As to the net benefit of this labor to the family, the Hulls (1977:846) suspect that, "overall, children as a group would be found to receive more than they return, even though many children, in many family situations, would make substantial net material contributions to the household income."

Perhaps more important net benefits from children in Java are the equally productive tasks they perform around the house, such as cooking, sweeping, fetching water, washing clothes, gathering cooking fuel, running errands, shopping, standing watch, and caring for younger children, primarily siblings. The ability to draw upon a pool of labor in the form of one's children to carry out these essential chores can have a substantial effect upon the family's standard of living in an area like rural Java, and in fact these tasks "offer some of the most potent reasons for bearing many children" (T. and V. Hull, 1977:848). Measurements of the time spent in such tasks by rural Javanese show declines on average after ages 20–29 for women (from a high of 44 hours per week) and ages 30–39 for males (17 hours), indicating that the younger children of the household are taking on more of these chores and thus freeing the parents to work more in income-earning activities (T. and V. Hull, 1977:856–58).

Another powerful argument in favor of high fertility for rural Javanese is the role of children in providing security for parents—material and emotional support when the parents cease productive labor as well as care, comfort, and advice in times of crisis earlier on. Given the present levels of mortality and out-migration, couples in rural Java could reasonably calculate that they would need to bear at least five children to meet such needs (T. and V. Hull, 1977:859–61).

The final beneficial aspect of childbearing discussed by the Hulls, that of accumulating prestige and power (1977:862–64), appears to be limited in Java to those few families already in the upper levels of the highly-stratified rural society found there; the idea of becoming upwardly mobile through one's children is rather unrealistic to the majority of these peasants. T. Hull (1975:321–24) observed, however, that a couple's first child does bring about a significant change in the status of its parents, but this is not necessarily the case for higher-order births.

The negative aspects of childbearing have also been examined by several writers, focusing mainly on the measurable economic costs involved in raising a child. T. Hull (1975:301–2) estimated the material costs of raising a child to age 21 at about US $300 for a poor family and a little over US $1,000 for a family from the wealthier section of the community. In a later study of families whose adolescent children attended school, Sugito (1979) found these costs to have risen sharply, particularly because of greatly increased food prices.

The study reported here looked at all of these positive and negative aspects of children from the viewpoint of the parents, relying on the perceptions of the parents of such benefits and costs rather than on actual measures of hours worked or financial outlays involved. Because of this approach it was possible to identify other salient features of childbearing in the two societies under study, especially the psychological and social rewards and emotional costs of having children. Altogether, we have identified seven dimensions of the value of children that appear to be important to parents in Java. The remainder of this section is organized according to those dimensions.

Instrumental benefits of children

In such societies as Indonesia families are fairly interdependent, and children are an important part of the structure of production and maintenance of the family's material well-being. This is particularly true in nuclear families, which Javanese and Sundanese families tend to be, where the parents rely to a great extent on the assistance they receive from their children, both when the children are still dependent upon their parents, and in their later years when the parents are not able fully to sustain themselves. The assistance parents receive from their children that we label "instrumental benefits" are outlined in Tables 6 to 8. Data in Table 6 are based on an open-ended question, whereas those in Tables 7 and 8 are from structured items.

In Tables 6 and 7 the instrumental benefits are compared with other advantages of children or reasons for having them, such as psychosocial benefits and sex preferences. Although the two tables are not strictly comparable, it is noteworthy that the patterns in the overall categories in both tables are similar–that is, Javanese respondents put greater emphasis on the instrumental advantages of children whereas the Sundanese tended to stress the psychosocial values, and wives placed more importance on instrumental values than did husbands.

TABLE 6 Advantages of having children
(Percentage distribution of first responses to open-ended question, by sex and cultural group)

Advantages	Wives		Husbands	
	Sundanese	Javanese	Sundanese	Javanese
INSTRUMENTAL BENEFITS	**42**	**73**	**29**	**68**
Financial support in old age	14	33	8	28
Financial help, no age specified	2	8	2	7
Help with housework	13	12	4	7
Help in business or farm work	4	16	2	22
Other assistance	8	4	13	4
PSYCHOSOCIAL BENEFITS	**56**	**26**	**67**	**31**
Companionship in old age	4	3	5	1
Family continuity	18	11	29	17
Love, companionship, family atmosphere	10	3	5	3
Stimulation, joy, happiness	18	7	18	3
To improve marriage bond	3	*	4	2
Other psychosocial advantages	3	2	7	1
OTHER RESPONSES	**2**	**1**	**4**	**1**
Total %	**100**	**100**	**100**	**100**
Number of respondents	978	1,022	489	487

NOTE: Percentages may not sum to subtotals because of rounding.
* Less than 0.5 percent.

To a great degree these differences were associated with educational levels. Respondents with more education were less likely than others to value children for the material assistance they could expect from them and, conversely, more likely to give a more personal, internalized reason for having or wanting children. Rural or urban residence also was an important variable in these differences, as shown in Table 9. Rural respondents were more likely than their urban counterparts to cite instrumental values of children rather than psychosocial ones, even with educational level controlled. Table 9 also demonstrates the consistency of this pattern between the two selected educational levels, between Javanese and Sundanese, and between wives and husbands. Thus the highest levels of instrumental responses were among the rural Javanese women of lower education, and the lowest levels were among the urban Sundanese men with higher education. Because most of the

TABLE 7 Most important reasons for wanting another child
(Percentage distribution of reasons considered to be important, from structured question, by sex and cultural group)

	Wives		Husbands	
Reasons	Sundanese	Javanese	Sundanese	Javanese
INSTRUMENTAL BENEFITS	**37**	**54**	**33**	**45**
Old-age assistance	23	32	25	26
Economic help	8	16	14	16
Help with housework	6	5	4	3
PSYCHOSOCIAL BENEFITS	**50**	**34**	**52**	**43**
Family continuity	8	5	11	8
One more to love and care for	6	2	8	4
Companion for other children	4	3	6	1
Pleasure from watching children grow	9	7	3	9
Fun to have young children around house	4	1	6	1
Reason to succeed in work	7	5	10	8
Improve husband-wife relationship	12	12	9	12
SEX PREFERENCE	**13**	**12**	**15**	**12**
To have a boy	7	8	8	8
To have a girl	5	4	6	4
Total %	**100**	**100**	**100**	**100**
Number of respondents	969	1,014	433	474

NOTE: Percentages may not sum to subtotals because of rounding.

responses to the question "What are the advantages of having children?" were grouped into either instrumental or psychosocial categories, the opposite pattern emerged for the psychosocial responses.

The types of assistance that parents in Java expected from their children are grouped into main categories in Tables 6–8. The most important single advantage of having children for the Javanese respondents was the perceived assurance that they would thus have some financial support in old age. Roughly the same percentages of Javanese wives and husbands also rated "to have someone to help you in old age" as the most important reason for having another child, and nearly a quarter of the Sundanese sample agreed with this rating. Only about a third of the respondents, however, said that they would expect a "great deal" of old-age support from their children. Also of great

TABLE 8 Help expected from sons and daughters
(Percentage of respondents expecting specified types of assistance, by sex and cultural group)

	Wives		Husbands	
Type of help	Sundanese	Javanese	Sundanese	Javanese
EXPECTED FROM SONS				
Give part of salary to parents when sons work	50	67	46	56
Help younger siblings through school	77	84	82	81
Contribute money in family emergencies	84	83	87	76
Help around the house	77	84	89	89
Support parents financially in old age	79	85	86	79
Give a "great deal" of financial help to parents in old age	39	34	33	30
EXPECTED FROM DAUGHTERS				
Give part of salary to parents when daughters work	43	65	44	54
Help younger siblings through school	65	79	81	79
Contribute money in family emergencies	81	80	86	75
Help around the house	88	96	95	92
Support parents financially in old age	69	83	85	77
Give a "great deal" of financial help to parents in old age	30	28	31	23

NOTE: Responses were to a structured question.

importance for the Javanese respondents was the help one could expect from children, especially sons, in earning the family's income; for the most part this help would be extra hands to do the farm work. The lower proportions of Sundanese respondents giving such answers probably is a reflection of the decreasing dependence of that sample on farm income. When asked for reasons for having sons in particular (Table 8), many Sundanese respondents indicated that sons would help them financially, but fewer than half of them stated that they expected sons to give them part of their salary when the sons began working. Daughters were seen by nearly all respondents as a source of

TABLE 9 Advantages of children, by educational level and urban/rural residence of respondents

(Percentages of respondents ascribing instrumental and psychological advantages in response to question "What are the advantages of having children?")

Type of advantages, years of schooling, and residence	Wives		Husbands	
	Sundanese	Javanese	Sundanese	Javanese
INSTRUMENTAL ADVANTAGES				
0–5 years				
Urban	(42)	65	(50)	(50)
Rural	53	79	40	80
6 years or more				
Urban	(18)	46	(15)	(34)
Rural	42	68	24	61
PSYCHOLOGICAL ADVANTAGES				
0–5 years				
Urban	58	(35)	(45)	(44)
Rural	42	20	59	19
6 years or more				
Urban	79	52	77	66
Rural	57	31	71	39

NOTE: Percentages in parentheses based on N $<$ 30.

assistance around the home; for many Javanese women this probably meant that daughters would free them from housework so that the mothers could work outside the house as traders or agricultural laborers to increase the family income.

Psychosocial benefits of children

The variety of what we label psychosocial advantages is greater than for the instrumental advantages, and these types of values are more clearly identified with the urban, more highly educated respondents. The most important of the psychosocial advantages for a large proportion of the respondents was the knowledge that one would have descendants. The label given to this concept in the tables, family continuity, is somewhat misleading as family names are not used in the Javanese and Sundanese societies; but apparently there is some notion of descent, especially through sons, for substantial numbers of respondents gave this as a reason for wanting a son (Table 10).

TABLE 10 Reasons for wanting a son
(Percentage distribution of first-mentioned reasons, by sex and cultural group)

	Wives		Husbands	
Reason	Sundanese	Javanese	Sundanese	Javanese
To help parents in old age	10	4	7	3
To help family financially	36	15	23	9
To help father at work	21	54	26	59
To help younger siblings	6	4	4	3
Other assistance	12	7	14	9
Family continuity	7	4	12	7
Other psychosocial reasons	3	9	5	5
Personal qualities of boys	4	1	6	3
Preference for sons	1	3	2	2
Total %	100	101	99	100
Number of respondents	801	928	414	412

NOTE: Responses were to an open-ended question. Percentages may not sum to 100 because of rounding.

A second important psychosocial advantage of children was the love and companionship one enjoys when one has children around the house and the idea that children provide a positive family atmosphere for the home. Daughters in particular were seen as providing this value for parents (Table 11). Closely related to this concept is the one labeled stimulation, joy, and happiness, which many respondents expressed as children making life complete and worthwhile. In a question at the end of the interview about how life is changed by having children, this idea was one of the most frequently mentioned of all positive responses. Other frequently mentioned psychosocial advantages were becoming more responsible and mature, and working harder.

Apart from feeling a need for children to support them financially in old age, some of the respondents also desired to have children to ensure that they would not be alone when they grew old and that there would be someone they could be with at that time. Old-age assistance, ranked as the most important reason for wanting another child (Table 12), probably included for some respondents the notion of comfort and care in old age rather than purely economic assistance; but it is fairly difficult in the context of these two societies to separate the two. Support in old age for most Indonesians of necessity includes

TABLE 11 Reasons for wanting a daughter
(Percentage distribution of first-mentioned reasons, by sex and cultural group)

Reason	Wives		Husbands	
	Sundanese	Javanese	Sundanese	Javanese
To help parents in old age	7	4	4	2
To help with housework	73	76	73	84
To help parents with other work	*	8	0	4
Other assistance	2	1	1	1
Companionship and love	12	7	9	4
Other psychosocial reasons	3	1	3	1
Personal qualities of girls	1	1	3	*
Preference for daughters	1	1	6	3
Total %	99	99	99	99
Number of respondents	805	928	408	405

NOTE: Responses were to an open-ended question. Percentages do not sum to 100 because of rounding.

* Less than 0.5 percent.

both direct economic assistance for daily needs and companionship. Many respondents, in fact, expressed the idea in terms of having someone to live with when they got old, or having a place of refuge in old age.

A final psychosocial advantage of children described by respondents was the positive effect of children upon the relations between husband and wife. This value should not be regarded as identical to the Western idea of parenthood making spouses more endeared to each other, but rather as something that lends stability to an institution that is traditionally unstable. A portion of the responses citing this advantage can probably be attributed to the tendency for marriages that do not result in children at an early stage in these two societies to be dissolved, and therefore for the first child to be a sign that the couple are fecund and the union fortuitous. We found further evidence for the perception that children are a stabilizing influence on marriage in replies to a question about whether respondents approved of the use of contraception within marriage but before the birth of the first child; nearly 70 percent of all wives and over one-half of husbands disapproved of contraception at this stage of the marriage.

TABLE 12 Most important reason for wanting another child
(Percentage distribution of responses to structured question, by sex and cultural group)

Reason	Wives		Husbands	
	Sundanese	Javanese	Sundanese	Javanese
To help in old age	23	32	15	26
One more to help financially	8	16	14	16
To help with housework	6	5	4	3
Family continuity	8	5	11	8
Someone to love and care for	6	2	8	4
Companion for other children	4	3	6	1
Pleasure from watching children grow	9	7	3	9
Fun to have young children at home	4	1	6	1
More reason to succeed in work	7	5	10	8
To bring husband and wife closer together	12	12	9	12
To have a boy	7	8	8	8
To have a girl	5	4	6	4
Total %	99	100	100	100
Number of respondents	968	1,014	433	474

NOTE: Percentages may not sum to 100 because of rounding.

Economic costs

The negative aspects of having children are grouped into three main categories: economic costs, opportunity costs, and emotional costs (Tables 13 and 14). Nearly 80 percent of the respondents rated financial problems as the most important ones they faced in having children. Worry and emotional strain were ranked second, ahead of children keeping one from doing other things.

A fourth major category envisioned in the initial value of children framework was social costs, in particular concerns about overpopulation; but this concept attracted little attention either as one of the general disadvantages of children (Table 13) or as an important reason for not having an additional child (Table 14). Later during the interview respondents were asked to rank these four costs, and over two-thirds of them regarded problems of overpopulation as least important.

Table 13, which is based on responses to an open-ended question, shows that between 3 and 11 percent of respondents in each subgroup

TABLE 13 Disadvantages of having children
(Percentage distribution of first responses to open-ended question, by sex and cultural group)

Disadvantages	Wives		Husbands	
	Sundanese	Javanese	Sundanese	Javanese
FINANCIAL COSTS	**12**	**33**	**30**	**44**
School expenses	3	5	5	5
Health expenses	1	7	2	9
General expenses	9	21	24	30
OPPORTUNITY COSTS	**11**	**3**	**4**	*
Reduced freedom	9	2	4	*
Harder to have a job	2	1	*	0
EMOTIONAL COSTS	**70**	**55**	**53**	**47**
More work, bother	17	4	9	1
Worry about children's health	36	39	21	32
Worry about future	1	1	3	1
Unpleasant aspects	13	9	13	11
Other emotional costs	3	1	7	2
OTHER DISADVANTAGES	**3**	**5**	**2**	**4**
"NO DISADVANTAGES"	**3**	**5**	**11**	**5**
Total %	**99**	**101**	**100**	**100**
Number of respondents	982	1,020	485	493

NOTE: Percentages may not sum to subtotals or 100 because of rounding.

* Less than 0.5 percent.

stated there were no disadvantages in having children. The open-ended question about disadvantages of children was placed early in the questionnaire, immediately after the question on advantages of having children, and it is possible that respondents giving this answer had not really thought about children in such terms before. The largest group saying there were no disadvantages—urban Sundanese males—had a similarly high percentage saying such things as "That's a good number" in reply to a question about why they would not want to have more children than the number they wished to have. Although this group was better educated than others in the sample and could be expected to give responses having a more rational content, that they did not do so may possibly be explained, at least in part, by relatively less involvement in childcare by husbands than by wives in both of these societies.

TABLE 14 Most important reasons for not wanting another child (Percentage distribution of responses to structured question, by sex and cultural group)

Reasons	Wives		Husbands	
	Sundanese	Javanese	Sundanese	Javanese
FINANCIAL BURDEN	**41**	**40**	**45**	**46**
OPPORTUNITY COSTS	**6**	**8**	**6**	**4**
Reduced freedom	4	4	2	1
Harder to have a job	3	5	3	3
EMOTIONAL COSTS	**38**	**40**	**36**	**32**
More work, bother	4	5	4	4
Less time with spouse	2	2	2	3
Worry about children's health	10	19	3	14
Cannot give enough care	11	6	15	8
Hard to discipline	12	8	11	3
OTHER REASONS	**14**	**12**	**13**	**18**
Too old to have another	12	9	9	12
Concern about overpopulation	2	2	5	6
Total %	**99**	**100**	**100**	**100**
Number of respondents	969	1,012	471	479

NOTE: Percentages may not sum to subtotals or 100 because of rounding.

Differences in male and female parental roles were also reflected in the greater concern by husbands about economic problems and the greater concern by wives about emotional strains and opportunity costs associated with having children.

About two-thirds of the respondents in each subgroup who identified economic costs as a disadvantage of having children mentioned financial expenses in general (Table 13). The remainder specifically cited expenses related to children's medical care or education. Higher proportions of Javanese than of Sundanese respondents of both sexes mentioned medical expenses and worry about children's health, even though the level of child mortality was lower among the Javanese sample. In response to specific questions later during the interview about the kinds of costs associated with children, the Javanese were more likely than the Sundanese to mention concerns about children's health as a cause for worry and strain (19 percent vs. 9 percent). But the Sundanese were more likely to mention medical expenses as the greatest cost in raising children (18 vs. 9 percent).

TABLE 15 Disadvantages of children, by educational level and urban/rural residence of respondents
(Percentages of respondents citing economic and emotional costs in response to question "What are the disadvantages of having children?")

Type of disadvantage, years of schooling, and residence	Wives		Husbands	
	Sundanese	Javanese	Sundanese	Javanese
ECONOMIC COST				
0–5 years				
Urban	(15)	40	(55)	(61)
Rural	12	35	24	47
6 years or more				
Urban	15	(22)	(35)	(26)
Rural	10	(28)	31	45
EMOTIONAL COST				
0–5 years				
Urban	65	45	(14)	(33)
Rural	70	52	61	43
6 years or more				
Urban	62	66	47	61
Rural	74	66	55	47

NOTE: Percentages in parentheses based on N $<$30.

Table 15 shows the relationship of urban or rural residence and education to respondents' perceptions about the disadvantages of children. The patterns revealed by these data are weaker than those relating residence and education to the advantages of children (Table 9) but are similar in their directions. The proportion of respondents citing economic costs as a disadvantage of children decreased with rising levels of schooling, except among the Sundanese rural husbands, where the proportion increased. Javanese respondents (except urban males) were more likely than the Sundanese to mention economic costs at both higher and lower levels of education. Mention of economic costs was most prevalent among the rural Javanese, but no rural-urban contrast was evident in the Sundanese sample. The most consistent pattern associated with economic costs was the greater perception of them by male than by female respondents. Among the Sundanese in particular, the salience of economic costs was differentiated by sex, only one-third to one-half as many wives as husbands mentioning them.

Earlier value of children studies (see Arnold et al., 1975:97–98) attribute this difference to the husband's traditional role as the major supplier of income for the family. The data presented here support that interpretation and indicate, moreover, that among societies where women also contribute substantially to the family income (as among the Javanese, but not the Sundanese) the differences between husbands' and wives' perceptions regarding economic costs will be less. Less educated Javanese wives, particularly the rural ones, were much more likely to mention economic costs than were Sundanese wives with similar educational backgrounds.

Emotional costs

Table 15 also indicates that emotional costs were more salient than economic costs to respondents in each subgroup except among urban Sundanese husbands with little education and Javanese husbands with little education. In Table 13 the overall figures (not controlling for place of residence or education) show a similar contrast. These two tables are based on a general, open-ended question. When asked specifically in a structured question (Table 14) to compare the various costs of having children, however, respondents overwhelmingly indicated that economic costs were the most important and emotional ones a distant second. Nevertheless, the salience of emotional costs cannot be discounted. The mention of such costs by large proportions of the sample without their being suggested to respondents probably indicates a widespread concern about them.

Because emotional and economic costs together accounted for between 75 and 95 percent of the responses to the open-ended question (Table 15), it is not surprising that some patterns are opposite to those shown earlier in response to the structured item (Table 14). In particular mention of emotional costs was positively correlated with years of schooling. Wives were more likely than husbands to mention emotional costs. On the other hand, rural-urban differences and contrasts between equivalent groups in the two cultures were minor.

The types of emotional costs mentioned most frequently were concerns about the health of the children (including worry that children might die), the additional trouble and bother that children bring into one's life, unpleasant aspects of parenthood (such as having to put up with the misbehavior of children), worries about children's future prospects school, marriage, employment and worry about their character in general. Concern about the children's health was uppermost in the minds of many respondents; but when later asked to rank the most important reasons for not having another child (Table 14), fewer respondents (especially among the Sundanese) placed emphasis on this concern. In contrast, nearly the same proportions of respondents placed importance on children being "hard to discipline" (Table 14) as mentioned "unpleasant aspects" of rearing children (Table 13). Few respondents mentioned being concerned that children might pose problems for the marital relationship or assigned importance to that concern as a reason for not having another child. In contrast, the worry that one could not give enough care and attention to an additional child ranked fairly high in importance, especially among the Sundanese. This concern was closely associated with higher educational attainment and urban residence.

Opportunity costs

Much less important to respondents as a negative aspect of children were opportunity costs, things that prevented parents from doing what they otherwise would be able to do. One aspect of opportunity costs is the restriction children place on a mother's time, which may prevent her from holding a job outside the home. In the structured item respondents were asked to rank various reasons for not having another child as the most important. One of these was "because it would be harder for you to have a job." Unfortunately, the question put to husbands was not phrased, as we originally intended, to mean "harder for *your wife* to have a job," and therefore it is not possible to determine the prevalence of that perception in the male samples. In any case, it seems that the problem of children preventing mothers from being gainfully employed was relatively minor among the female respondents. As noted earlier, only a minority of the Sundanese women reported that they had held a job since marriage, but this tendency for Sundanese women not to work after marriage seems to be due to a cultural prohibition on such activity rather than to a childcare problem. In contrast, among the Javanese women, a majority stated that they had worked since marriage. Anthropological studies (H. Geertz, 1963:95; V. Hull, 1975:184–88) have detailed the ways in which Javanese women, particularly those from the poorer sections of the community, manage their children while holding jobs. Later in the VOC interview our respondents were asked to mention what things children interfered with or prevented them from doing, and only about 10 percent of the wives stated that they could not work outside the home because of children.

A second opportunity cost mentioned by respondents when answering the open-ended question was the feeling of being tied down and having less freedom to go out socially (Table 13). One would expect to find this cost to be mentioned mainly by the more Westernized or modernized segment of the societies being studied; and this was true if one considers the Sundanese, with more years of schooling, to be more modernized than the Javanese. In the responses to a later question about specific types of interference from children (not tabulated here), some urban-rural differences among the wives were evident. Seven percent of urban Javanese and 15 percent of urban Sundanese women mentioned some sort of interference, as opposed to 3 percent and 8 percent of their rural counterparts. Among men there was little urban-rural contrast, but the overall levels were slightly higher than for wives. Of much greater importance to the female respondents than children's interference with social freedom was their interference with housework. For husbands, children's interference was less of a problem. Nearly 70 percent of the Javanese and over 40 percent of the Sundanese men answered that children do not interfere with anything, an indication perhaps of the low degree of involvement of these men in the running of their households. Again, anthropological observations (H. Geertz, 1963:79) lend support to the impression one gets from these data that Sundanese and Javanese husbands leave much of the responsibility of childrearing to their wives.

Qualities desired in children

We turn now from the positive and negative aspects of parenthood to a somewhat different dimension in the overall value of children, which we identify as the qualities that parents wish their children to have. The purpose of this portion of the interview was to explore parental perceptions of desirable qualities in children, which, according to some population theorists, become increasingly important as parents begin to limit their family size. First, respondents were asked what qualities they would like to see in their sons and daughters. The first responses to these questions, grouped into major categories, are shown in Tables 16 and 17. Next, respondents were asked to select the most important quality that children could have out of five possibilities; the results are given in Table 18.

TABLE 16 Qualities desired in sons
(Percentage distribution of first responses to open-ended question, by sex and cultural group)

Qualities	Wives Sundanese	Wives Javanese	Husbands Sundanese	Husbands Javanese
PERSONALITY TRAITS	**64**	**26**	**62**	**32**
Good, moral person	59	20	59	22
Well-mannered	3	3	1	4
Other traits	2	3	2	6
ACHIEVEMENT	**14**	**24**	**17**	**23**
In school	11	16	15	13
Other	3	8	2	10
FAMILY ROLE	**21**	**49**	**20**	**44**
Good to parents	20	47	19	42
Other	1	2	1	2
OTHER	**1**	**1**	**1**	**2**
Total %	**100**	**100**	**100**	**101**
Number of respondents	999	1,025	496	493

NOTE: Percentages may not sum to 100 because of rounding.

TABLE 17 Qualities desired in daughters
(Percentage distribution of first responses to open-ended question, by sex and cultural group)

Qualities	Wives Sundanese	Wives Javanese	Husbands Sundanese	Husbands Javanese
PERSONALITY TRAITS	**51**	**21**	**57**	**28**
Good, moral person	45	13	53	16
Well-mannered	3	4	3	7
Others	3	4	1	5
ACHIEVEMENT	**10**	**20**	**14**	**20**
In school	7	8	12	10
Other	3	12	2	10
FAMILY ROLE	**39**	**59**	**28**	**52**
Good to parents	20	54	20	46
Other	19	5	8	6
OTHER	*	**1**	**1**	**1**
Total %	**100**	**101**	**100**	**101**
Number of respondents	1,000	1,027	495	492

NOTE: Percentages may not sum to 100 because of rounding.

* Less than 0.5 percent.

Comparing first the qualities desired in sons with those desired in daughters, we were somewhat surprised to find similarities between the two patterns, for we had expected respondents to desire different qualities in the two sexes. Cross-tabulation of responses about sons and daughters indicates high correlation at the individual level; that is, parents who gave a certain response for qualities desired in sons were likely to give the same or a similar response for qualities desired in daughters. The one notable exception to this pattern was in the quality of "family role," which was considered more desirable in daughters than in sons. Included in this category were being good to parents, positive actions toward siblings and other family members, and achievement in marriage (being a good wife, mother, and homemaker in the case of daughters; being a good husband, father, and provider in the case of sons). Detailed tabulations show that respondents placed more emphasis on the qualities of being a good parent and being a good homemaker for daughters than for sons; and this emphasis accounts for much of the difference observed for this category between Sundanese and Javanese respondents.

Although a majority of both ethnic groups subsequently rated "to obey parents" as the most important quality in children (Table 18), fewer respondents mentioned being "good to parents" (a similar concept) when describing qualities desired in sons and daughters (Tables 16 and 17). When speaking about qualities desired in sons and daughters specifically, Sundanese respondents mentioned moral qualities

TABLE 18 Most important quality in children
(Percentage distribution of responses to structured question, by sex and cultural group)

	Wives		Husbands	
Quality	Sundanese	Javanese	Sundanese	Javanese
Obedient to parents	66	74	52	68
Independent, self-reliant	8	4	11	5
Popular, liked by others	2	2	1	3
Successful in school	9	9	9	7
A good person	15	12	27	17
Total %	100	101	100	100
Number of respondents	998	1,028	486	482

NOTE: Percentages may not sum to 100 because of rounding.

(especially good religious habits) more frequently than good relations with parents, whereas this pattern was reversed among the Javanese, for whom good relations with the parents were both salient and important qualities in children. The latter finding was not surprising in view of the greater desire among the Javanese for instrumental assistance from their children. The notion of being good to parents included being obedient, willing to help parents, taking care of parents, working with parents, understanding parents' difficulties, and honoring the parents; it was thus a mixture of what we earlier labeled as instrumental and psychosocial advantages, but with an emphasis on the former.

Sex preferences

The final dimension of the value of children studied in this survey was the preferences of parents for certain types of family composition. The main feature of composition of interest is sex preference. The perceived desirability of certain numbers and combinations of children was a part of this dimension, and it is examined in the next section.

The questionnaire contained one direct question regarding sex preferences. Respondents were asked to choose, in a hypothetical situation, the best combination of sexes if they could have only three children. As expected, most chose one boy and two girls or two boys and one girl. Then respondents were asked to choose the next best combination, assuming their first choice were not possible, and many selected the opposite combination. Finally, they were asked to choose what combination they would want if neither the first nor the second option were available—in other words, three boys and no girls or three girls and no boys. As indicated in Table 19, many of the respondents could not make such choices; over half of the Javanese and over one-third of the Sundanese respondents were unable to accept the choices offered. This finding may be indicative of the weakness of sex preferences among these two groups, especially relative to preferences in other Asian and Islamic societies. Of those who could answer the last stage of this question, preferences for their own sex were moderately strong among the Sundanese, less among the Javanese husbands, and absent in the Javanese wives.

One explanation for the weaker preferences for sons in these two societies, relative to son preference in other Asian cultures (particularly the Chinese and Indian), is the lack of a lineal kinship system and the relatively low salience of the need for sons to carry on the family

TABLE 19 Preferred sex of children
(Percentage distribution of responses to a question that required respondents to choose a family composed entirely of one sex or the other, by sex and cultural group)

	Wives		Husbands	
Preference	Sundanese	Javanese	Sundanese	Javanese
Sons	24	19	47	35
Daughters	42	19	20	13
Unable to answer	34	62	33	51
Total %	100	100	100	99
Number of respondents	809	932	420	415

NOTE: Percentages may not sum to 100 because of rounding.

line. As we noted earlier, continuity of the family was the single most frequently mentioned psychosocial advantage of children in general, but it was mentioned much less frequently than most of the instrumental advantages. Twelve percent of the Sundanese husbands gave this response, compared with 7 percent of the Javanese husbands; about half as many wives in each group mentioned family continuity as an advantage.

Differences in sex preferences between the Sundanese and Javanese may be related to different reasons for wanting sons and daughters (Tables 10 and 11). Instrumental advantages were strongest for both sexes of children (especially help in business or farm work and financial help from sons, and help in housework from daughters), and these were about equal in salience for the two culture groups; but the main psychosocial advantages of children of a specific sex (family continuity for sons, love and companionship for daughters) differed between the two groups in the direction and extent of the observed differences in sex preferences.

Summary of main findings

The data presented above indicate that there was considerable variation within the sample in the values attached to children, with major differences according to cultural group, sex, education, and place of residence. When examining the broad advantages of having children, we found that the Javanese placed more emphasis than the Sundanese on the instrumental or material benefits from children, such as financial aid, assistance in old age, cooperation in household chores, and help in family enterprises. In contrast, the Sundanese stressed the psychosocial or emotional aspects of childrearing—family continuity through one's descendants, companionship, stimulation, happiness, and improved relations between spouses. These differences were consistent when sex, education, and rural-urban residence were controlled, and they were consistent for most of the individual advantages or benefits. Within the two cultural groups, differences based on sex, education, and place of residence were also quite strong. Material advantages were more likely to be mentioned by wives, rural residents, and those with less education. Conversely, psychosocial benefits were emphasized more by husbands, urban dwellers, and respondents with higher educational attainment.

When the types of costs—economic, emotional, opportunity, and social—of having children were ranked by the respondents, economic ones were clearly perceived as the most pressing by all the main subgroups in the sample. On other questions, however, respondents emphasized emotional costs (particularly concerns about the health of children) as much as financial considerations. Differences between the various subgroups were similar to but less pronounced than those found for the advantages of children: The importance attached to economic costs tended to decrease with increasing education; Javanese placed more emphasis on economic costs than did Sundanese; rural-urban differences were negligible for the most part; and husbands were more likely than wives to mention economic costs—in accordance with findings from other countries.

Two other aspects of the value of children were explored in this study, the qualities desired in children and the preferences for children of a certain sex. The data indicate only weak preferences for children of the same sex as the respondent, and little distinction made between sons and daughters in relation to desired characteristics. The Sundanese respondents wanted their children to have strong moral qualities, especially religious habits, whereas the Javanese put more importance on close relationships between parents and children.

SPECIAL TOPICS

Although the data permit the development of several themes, we have concentrated on three as being particularly important in the Indonesian context. The first concerns the relationships between attitudes toward having additional children and attitudes toward family planning. As this survey was one of the first to find relatively widespread use of family planning in Central Java, these associations are important in a historical sense. Furthermore, they constitute a backdrop against which to view the two remaining special topics: child-loss experiences and desired and ideal family sizes as they are related to the value of children. We have selected the second topic, child loss, because, given the general state of our knowledge regarding the social effect of infant and child mortality on fertility (see Ware, 1977), it is desirable to examine in some detail the associations between child-loss experience and the value of children in a country where the mortality levels are still fairly high. Specifically, we wanted to examine these relationships in a society whose dense living conditions ensure that virtually any occurrence of child death is known about by many others because we wished to consider the extent to which community experience of child loss affects reproductive behavior, regardless of the experiences of individual couples. Though developed to some extent here, these ideas will be elaborated in a separate report. The third special topic concerns the patterns of responses to questions about desired and ideal family sizes. This issue is of particular relevance to any discussion about the possibility of Indonesia approaching a two-child norm (replacement fertility) in the foreseeable future.

Family planning patterns

Throughout this discussion it must be borne in mind that the VOC Study was not intended to be a thorough family planning survey, so that some data that would normally be collected in such a survey are not available. In general our data indicate that knowledge of family planning methods and issues was virtually universal among the VOC sample; that contraceptive use was fairly high in both survey regions and in both rural and urban areas; that most of the observed patterns were in expected directions; and that no unusual relationships existed between family planning intention and use and the perceived advantages and disadvantages of children. Although economic values were often mentioned, the prevalence of noneconomic values in the responses highlight the importance of not focusing excessively on economic values in assessing family planning behavior.

The pattern of correlations of a family planning index measure (constructed from questions about general approval of family planning

TABLE 20 Correlations of family planning index with basic sociodemographic characteristics

Sociodemographic characteristic	Javanese				Sundanese			
	Female		Male		Female		Male	
	Urban	Rural	Urban	Rural	Urban	Rural	Urban	Rural
Respondent's educational level	.40†	.20††	.46†	.20††	.29†	.02	.27†	.00
Expenditure	.09	.12*	.04	.12	.15*	−.12††	.19	.02
No. of children living at home	.10	−.03	−.07	.10*	.00	.06	.09	.05
Desired family size	−.04	−.03	−.36††	−.09	−.04	.01	−.01	.06
Age	.05	.01	−.23†	−.06	.14	.14††	.04	.05
Age at marriage	.20*	.04	−.09	−.03	.26††	.06	.03	.03

* $p < .05$.
† $p < .01$.
†† $p < .001$.

and about approval under specific conditions) with key background variables is shown in Table 20. In general the patterns are what would be expected: Favorable attitudes toward family planning were moderately correlated with socioeconomic scores of urban respondents but not with those of rural respondents except for a weaker relationship among rural Javanese; the educational levels of both female respondents and their spouses were positively associated with family planning attitudes, and as before the relationships were strongest in urban groups but virtually nonexistent among rural Sundanese respondents, with the rural Javanese falling midway; correlations of income were weakly associated with family planning attitudes among rural Javanese respondents and urban Sundanese; on remaining characteristics of occupational status, the number of children at home, desired family size, age, age at marriage, and marriage duration, there were scattered positive correlations but most were fairly weak.

Multiple regression analysis gives better evidence of the predictive power of the variables just discussed (Table 21). The variables concerning media exposure and levels of schooling provide most of the predictive power for favorable attitudes toward family planning, but there are interesting changes in the patterns when subgroups are analyzed. Of particular interest in Table 21 is the importance of the locus

TABLE 21 Zero-order correlations (r), regression coefficients (betas), and proportion of variance explained in stepwise multiple regression (r^2) for prediction of favorable family planning attitude, by socioeconomic and demographic characteristics of respondents

Sample and variable[a]	r	beta	r^2
TOTAL SAMPLE (N = 2,935)			
Frequency of hearing or reading news	.22	.16	.047
Internal vs. external locus of control	−.05	−.07	.051
Percentage of life spent in urban area	.02	−.09	.055
Level of schooling completed	.19	.12	.061
Monthly household expenditure	.01	−.06	.064
Number of living children[b]	.06	.04	.067
Occupational status of husband	.16	.04	.068
Current age	.05	.03	.069
Age at first marriage	.08	[c]	[c]
JAVANESE WIVES (N = 1,015)			
Frequency of hearing or reading news	.24	.15	.057
Occupational status of husband	.20	.08	.068
Level of schooling completed	.23	.15	.073
Percentage of life spent in urban area	.06	−.10	.079
Number of living children[b]	.07	.09	.086
Internal vs. external locus of control	−.07	−.05	.088
Monthly household expenditure	.03	−.04	.090
Age at first marriage	.08	.01	.090
Current age	.01	[c]	[c]
JAVANESE HUSBANDS (N = 484)			
Level of schooling completed	.21	.23	.044
Percentage of life spent in urban area	−.02	−.19	.044
Frequency of hearing or reading news	.19	.12	.077
Age at first marriage	−.02	−.03	.079
Current age	−.09	−.06	.079
Number of living children[b]	−.01	.04	.080
Monthly household expenditure	.05	−.02	.080
Internal vs. external locus of control	−.07	−.01	.081
Occupational status	.14	−.01	.081
SUNDANESE WIVES (N = 961)			
Frequency of hearing or reading news	.18	.20	.032
Internal vs. external locus of control	−.15	−.16	.049
Monthly household expenditure	−.08	−.11	.064
Current age	.14	.15	.079
Percentage of life spent in urban area	−.03	−.11	.089
Number of living children[b]	.03	−.07	.092

TABLE 21 *(continued)*

Sample and variable[a]	r	beta	r^2
Age at first marriage	.08	.05	.093
Level of schooling completed	.06	-.06	.094
Occupational status of husband	.11	.03	.095
SUNDANESE HUSBANDS (N = 475)			
Internal vs. external locus of control	-.20	-.23	.039
Number of living children[b]	.08	.09	.049
Percentage of life spent in urban area	.00	-.06	.053
Age at first marriage	-.01	-.05	.054
Frequency of hearing or reading news	.05	.03	.055
Occupational status	.05	.02	.055
Monthly household expenditure	.03	-.01	.055
Current age	.03	c	c
Level of schooling completed	.04	c	c

NOTE: Sample sizes used in the multiple regression analysis are less than the number of persons interviewed because cases of missing data on any of the variables used in the analysis were excluded. Family planning attitude was measured by approval of use of contraception in general and in three specific situations—to delay the birth of the first child, to space births, and to prevent further pregnancies after having all the children desired.

[a] The variables are listed for each sample according to their priority in adding to the proportion of variance explained (r^2).

[b] Number of living children includes own children, step-children, and adopted children.

[c] This variable was not included in the regression equation because its F ratio was insufficient for further computation.

of control variable in the Sundanese male sample. This variable concerns the extent to which people see their lives being controlled by themselves or by outside events and circumstances. Further interpretation of this variable is not possible without more extensive information on which aspects of family formation and planning the men saw as within their control. This question suggests an avenue for further study.

Detailed analyses of various subsets of these variables and different subgroups of respondents for the most part reinforced the general patterns. There was little approval for use of family planning to delay the first birth regardless of the type of respondent or location. Approval for family planning was higher among users than among nonusers. Respondents who were unsure about whether they would practice contraception tended to mention psychosocial advantages of children more often than respondents who were already using contraception. This suggestive pattern needs to be explored further; insufficient evidence exists in this study to reach a firm conclusion on this matter. Similar detailed analyses revealed no major differences between mention of advantages and disadvantages and the use of contraception. Again we found some suggestive patterns (e.g., respondents who mentioned emotional disadvantages of children were more likely than others to be unsure about the use of contraception), but these patterns need to be investigated in future studies.

To understand more fully the relationship between attitudes toward family planning and actual family planning practices, it is useful to examine the data pertaining to wanting or not wanting additional children. Analyses of the degree of importance respondents attached to 22 reasons for wanting and not wanting additional children indicate the following general patterns: In most instances respondents who wanted more children attached greater importance to reasons for wanting more children than did respondents who did not want more children, and this pattern was consistent and substantial; conversely, respondents who did not want more children usually attached greater importance to reasons for not wanting more children than did other respondents, but the pattern was less consistent and the differences less significant; respondents who assigned importance to reasons for having more children and considered reasons for not having more children to be relatively unimportant were much less likely than other respondents to be practicing contraception, presumably because they were also the respondents who did want another child. These patterns were consistent with our expectations based on usual relationships found between attitudes and family planning practices.

In addition, several correlational analyses indicated the importance of these attitudinal factors concerning more children. Table 22 shows Pearson correlations between the importance that female respondents attached to reasons for wanting more children and the number of additional children they actually wanted. (Correlations for reasons for not wanting more children are not shown in the table because the values were small and few were significant.) The table also shows correlations controlled for the effects of age, education, and parity. Controlling for the effects of parity produced the sharpest reduction in the correlations. Age had next most substantial effect, and education (in contrast to the result from analysis using cross-tabulations) had little effect. When all three major variables were partialled out, the resultant

TABLE 22 Zero-order and partial correlations between number of additional children wanted and importance of reasons for wanting another child: wives
(Partial correlations controlled for education, age, and parity separately and together)

				Partial *r*							
	Zero-order *r*			Education		Age		Parity		Education + age + parity	
Reason for wanting another child	Total sample	Javanese	Sundanese	Javanese	Sundanese	Javanese	Sundanese	Javanese	Sundanese	Javanese	Sundanese
To have someone to love and care for	.35	.39	.40	.37	.38	.27	.30	.23	.26	.20	.25
So that there will be one more person to help family economically	.21	.24	.24	.24	.22	.15	.11	.17	.14	.14	.12
Because you want to have a/another boy	.42	.42	.42	.44	.41	.35	.32	.31	.28	.29	.27
To provide a companion for your child/children	.38	.39	.41	.38	.41	.28	.31	.24	.26	.21	.24
Because another child would give you more reason to succeed in work	.22	.24	.29	.23	.24	.17	.17	.17	.15	.15	.14
To be sure in your old age you will have someone to help you	.17	.16	.28	.16	.21	*	.14	*	.14	*	.13
To have a child to help around the house	.16	.17	.26	.16	.21	.11	*	.13	.12	.11	.11
Because of the pleasure you get from watching child grow	.16	.19	.25	.16	.16	*	.15	*	*	*	.11
To bring you and your husband closer together	.20	.19	.28	.19	.22	.13	.19	.13	.13	.11	.14
Because you want to have a/another girl	.40	.43	.40	.43	.39	.34	.31	.30	.27	.28	.26
To help carry on family name	.19	.20	.30	.18	.26	.14	.20	.14	.19	.13	.18
Because it is fun to have young children around the house	.17	.21	.24	.22	.17	.15	.15	.15	.11	.13	.12

* Not significant at the .05 level.

correlations were only marginally different from those controlled for parity alone. In other words, the parity of the respondents by itself was a major factor, as expected, in shaping their attitudes toward reasons for wanting or not wanting more children.

Correlations of the attitudinal factors with the family planning index failed to produce similar patterns either for the simple or the partial correlations. Although we obtained significant (positive) correlations between attitudes toward having more children and the number of additional children wanted, even when age and parity were partialled out, no similar pattern emerged of significant correlations between the attitude items and the combined index of family planning attitudes, either in the simple correlations or the partialled ones. This finding provides evidence consistent with general findings in KAP (knowledge, attitudes, and [fertility] practices) surveys that family planning knowledge is a poor indicator of childbearing attitudes or fertility intentions, whereas questions concerning the desirability of additional children and ultimate family size show consistent and significant correlations with the attitude items.

Further analysis of the relationship between the desire for no more children and current contraceptive practice is summarized in Table 23. As in other countries, despite the context of universal knowledge of family planning, it is apparent that contraceptive practice did not match the levels of knowledge among either Sundanese or Javanese wives. Even among the highest age group with the higher parities, not more than 73 percent of those wanting no more children and believing they were still able to conceive were practicing contraception. Among younger women who wanted no more children the proportions using contraception were considerably lower, especially in the Sundanese groups. These results are interesting in themselves for they indicate the imperfect relationship between knowledge and practice. This is a common finding in population studies; but it is usually unclear, as in this case, whether the pattern reflects reality or whether women say they want no more children when in fact they are undecided. The data in Table 23 are especially interesting for their policy implications because in all age groups the proportion of women wanting no more children was smaller for lower-parity than for higher-parity respondents and among those who wanted no more children contraceptive practice was only moderate except for women in the higher-parity groups, regardless of age. Another finding of interest is that among Javanese women

TABLE 23 Percentage of exposed women stating they wanted no more children and, of those, percentage stating they were using some form of contraception, by age, number of living children, and cultural group

	Javanese			Sundanese		
Age group and number of living children	N	Wanting no more children	Of those wanting no more, % using some method	N	Wanting no more children	Of those wanting no more, % using some method
Age less than 30						
0–3 children	320	18	56	347	24	39
4+	65	71	70	92	84	36
Age 30–34						
0–4 children	168	45	57	115	58	61
5+	79	85	69	96	90	52
Age 35–39						
0–4 children	92	67	63	52	48	48[a]
5+	110	91	73	75	95	65
Total	834	49	65	777	53	50

NOTE: Exposed women included all in sample (married women, living with spouse, age less than 40) except those who said they were pregnant or that it was no longer possible for them to have a child.

[a] Based on less than 30 (12 of 25) cases.

wanting no more children the levels of contraceptive use were similar regardless of age, for the comparable parity groups. Such was not the case in the Sundanese data. Here we found substantially lower levels of contraceptive use in the youngest group as well as smaller discrepancies between the lower- and higher-parity respondents. These patterns suggest that the family planning messages have been more thoroughly received and followed in Central Java than in the Sundanese sample areas. The differences may also indicate different levels of motivation to cease bearing children: this possibility is suggested by the finding that in most of the age-parity groupings shown in Table 23 more Sundanese than Javanese women stated that they wanted no more children, although among these women the Javanese were more likely to be using contraception. These results suggest the need for more detailed study of parity-specific attitudes toward additional children.

No clear patterns can be discerned within these broader trends when age and parity are used as control variables. Mainly such analysis reinforces the foregoing discussion; that is, intention and use were both somewhat more likely among the older and high-parity women, but they were not sharply lower among younger and less fertile women. With respect to advantages and disadvantages it is also not possible to discern any major trends concerning intention to use, or actual use of, contraception.

As indicated at the outset of this section, some of these results are not surprising given the nearly universal awareness of family planning in the sample. What is surprising is that intention and use patterns were not sharply distinguishable on any of the variables discussed. Perhaps the most important point to be considered is that for those who were uncertain about using contraception or not using it emotional disadvantages and psychosocial advantages of children seemed, generally, to be more important than more conventional economic ones. One interpretation of this finding is that individuals for whom social and emotional issues are more dominant than economic ones are far more likely also to be ambivalent about family planning than others. Should this interpretation be confirmed by further research it would have implications for the types of appeal made by the family planning program to such ambivalent people. Further study of these possibilities should be made in surveys designed for the purpose of clarifying such linkages.

Effect of child mortality on the value of children

As indicated previously, the incidence of child loss reported by respondents was high. Compared with data on child mortality reported by Hull and Rohde (1978), those obtained from the VOC sample were reasonably consistent with the levels of infant and child loss recorded for Java as a whole. In examining the sociodemographic characteristics of respondents who had suffered child loss, we discovered several patterns (Table 24).

Rural respondents had experienced considerably more child mortality than urban respondents, and Sundanese more child deaths than Javanese. Analysis of the extent of rural and urban experience shows that respondents who had lived only in rural areas reported the greatest loss, those who had lived in both rural and urban areas somewhat less, and urban dwellers the least. The proportion who had experienced loss among those with mixed (urban and rural) experience was substantially less in Central Java (20 percent) than in West Java (41

TABLE 24 Percentage of respondents reporting child loss, by respondent characteristics

Characteristic	Wives		Husbands	
	Sundanese	Javanese	Sundanese	Javanese
Total reporting child loss	40	36	43	36
Urban/rural residence				
Urban	29	26	36	22
Rural	42	38	43	39
Urban/rural experience				
Urban only	26	28	32	18
Rural only	42	39	48	39
Both	41	20	38	34
Age and parity				
< 30 years, 0–2 children	28	24	na	na
30+ years, 0–4 children	36	40	na	na
< 30 years, 3+ children	38	25	na	na
30+ years, 5+ children	51	45	na	na
Age at marriage				
8–14	49	44	na	na
15–17	44	34	na	na
18–20	34	36	na	na
21–24	11	15	na	na
25+	22	19	na	na
Years of marriage				
0–5	15	8	17	10
6–10	31	22	23	24
11–15	44	40	42	32
16–20	54	46	61	45
20+	61	47	65	52
Family type				
Nuclear only	42	40	na	na
Older generation present	33	28	na	na
Younger or same generation present	32	22	na	na
Years of schooling completed				
0–2	53	43	62	44
3–5	52	29	59	38
6–8	36	27	40	30
9–11	24	14	36	23
12+	15	15	19	17
Level of monthly per capita household expenditure				
High	38	27	na	na
Medium	42	37	na	na
Low	42	41	na	na

TABLE 24 *(continued)*

Characteristic	Wives		Husbands	
	Sundanese	Javanese	Sundanese	Javanese
Desired number of children				
0–2	35	42	48	48
3	34	36	29	33
4	36	33	38	33
5	42	34	44	34
6+	50	38	52	38
Ideal number of children				
0–2	32	38	36	40
3	36	33	38	41
4	36	35	37	34
5	39	36	53	33
6+	56	46	51	44
Listen to news on radio?				
Every day	37	25	38	30
Few times per week	39	29	39	40
Rarely	36	34	60	38
Never	49	41	50	34
Currently using contraception?				
Yes	37	37	43	40
No	42	34	41	34
Pregnant (self or wife)	40	37	65	52

na—not applicable.

percent). As we mentioned earlier, these differences are counter to that expected on the basis of the literacy and expenditure levels for the two areas and probably are related in part to historical factors. Possibly they are also related to parents' access to health services at childbirth or when children were ill. Other explanations might include local nutritional levels for infants and children, endemic diseases, or climate; the survey did not gather information on such topics. For respondents with only urban experience there was little difference in child mortality between Central and West Java, a finding that seems to suggest that in both areas the prospects for child survival were greater and more similar in an urban, rather than rural, setting. Even among urban respondents, however, the proportions reporting child loss were substantial, ranging from 18 percent for Javanese males to 32 percent for Sundanese males. Regardless of location or rural/urban experience, the loss of a child was a fairly common occurrence and might be expected to affect the perceptions of costs and advantages of children.

Using a combined age-parity measure, we found that young Javanese women, of low or high parity, were least likely to have experienced child loss (24–25 percent), and that among young Sundanese women those with low parity were less likely to have experienced child loss (28 percent) than high-parity women (38 percent). Among older women the percentages reporting a child death were higher for both ethnic groups, and on average half of those with five or more living children had lost a child.

Women who had married at younger ages (under 17) constituted well over half the sample, and they had experienced more child loss than other women, as would be expected. The incidence of child loss was higher for Sundanese than for Javanese women who had married before age 17, but among women who had married at older ages the proportions reporting a child death were more similar for the two ethnic groups–a finding related to similarities in educational and socioeconomic levels for those marrying late.

Correlations between child mortality and the length of marriage were discussed briefly in the section on characteristics of the VOC sample. Interesting differences between the Sundanese and Javanese observed in these data are related to age at marriage and family formation patterns. As can be seen in Table 24, by the time a Javanese woman had been married ten years she stood about a 20 percent chance of having lost a child, whereas her Sundanese counterpart stood a 30 percent chance of such loss. By the time women had been married 20 years the chances had increased to approximately 45 percent and 55 percent respectively. For those married longer than 20 years the chances remained close to 45 percent for Javanese respondents but had increased to 60 percent for Sundanese. These differences between the two groups are probably connected with historical events, but as the VOC survey did not collect data on specific dates and causes of child mortality it is not possible to verify this hypothesis.

There was little difference in reported child mortality levels between Sundanese and Javanese according to type of family. But child loss was disproportionately high for both groups among those living in nuclear families. Such families were also more likely to be poor and rural.

Literacy levels were related to child mortality in the anticipated manner, with women of little education having experienced the greatest incidence of child loss. Javanese wives reported lower rates at all literacy levels except for those with 12 or more years of schooling.

Furthermore, the decrease in reported child mortality between 0–2 and 3–5 years of schooling was sharper for Javanese than for Sundanese. Particularly interesting is that at all literacy levels men were more likely to report child loss than were women with comparable education. One possible explanation is that families in which the husbands had low educational attainment were more likely to be poor and thus less able to provide the minimal requirements for their children's health than were families in which only the wives were poorly educated. This finding also may reflect the experience of male respondents in previous marriages, or it may indicate more accurate recall on the part of the husbands.

Correlations between desired and ideal family sizes and child mortality were fairly similar for the two ethnic groups. For the ideal measure the proportion of women reporting a child death was in the 30 to 40 percent range except among those indicating an ideal of six or more children, where percentages were higher; for the latter group ideal and actual parity coincided in many cases. What is of particular interest, though, is that the Javanese respondents (and to a lesser degree Sundanese husbands) who said they desired a small family (of 0–2 children) were much more likely to have lost a child than those desiring larger family sizes. This pattern of response may reflect life experience more than choice in that the desire for two or fewer children was more likely to be reported by low-parity respondents as their length of marriage increased; such respondents "preferred" smaller families perhaps because they had been unable to have larger ones.

For all subgroups those who heard news broadcasts daily were least likely to have lost a child, a trend related to educational levels. Regarding contraception, respondents who reported they were not currently using some method were, except for Sundanese wives, less likely to have lost a child than those who were using contraception, probably because those not using a method were younger and of lower parity.

Among respondents who had experienced child mortality, most had lost only one child (Table 25). Nonetheless, a quarter of those reporting child loss had had two children die and another 11–13 percent had lost three children. Those who had lost three or more constituted only 5–6 percent of those reporting child loss in the Central Java sample but 9–11 percent of those in the West Java one. Seen another way, of those who had lost a child 40 percent had lost more than one; this in turn means that of the total sample about 20 percent had experienced multiple child deaths.

TABLE 25 Percentage of respondents reporting child loss and, of those, percentage who lost specified number, by sex and cultural group

	Wives		Husbands	
Item	Sundanese	Javanese	Sundanese	Javanese
Total reporting loss	40	36	42	36
Number of deceased children				
1	50	60	55	57
2	27	23	24	27
3	13	11	11	11
4+	9	6	11	5

Additional analysis showed that those who had had a child die were slightly more likely than others to be using contraception, but presumably this correlation was related to age, parity, and perhaps also clinic contact as a result of health problems with a child. The present study did not collect data that can be used to examine the last possibility.

We turn now to an examination of the relationship of child loss experience to perceptions of children. Few strong differences emerged in the perceptions of children between respondents who had experienced a child death and those who had not, but several showed sufficient consistency to be interesting and informative (Table 26).

Looking at the advantages of children variable, one sees that those who reported child loss were more likely to mention the instrumental advantages of economic help in old age and help with housework. In contrast, those who had not lost children were more likely to mention psychosocial advantages, such as the stimulation, joy, and happiness that children provide and the continuation of the family. Furthermore, the main reasons mentioned for wanting a son (help in business or farm work) and a daughter (help with housework) were given more frequently by those who had lost a child. Neither of these patterns is dramatic, but they are consistent for wives and husbands in both survey areas and they are supported by the tabulation of responses to the question on the most important reasons for wanting another child.

As for disadvantages of children, respondents who had lost a child were more likely to mention economic costs and worry about children's health than other respondents. These disadvantages were also mentioned more frequently as the major reasons for not having another child by people who had experienced child loss. Though the

TABLE 26 Percentage of respondents indicating selected advantages of children, disadvantages, and reasons for wanting sons and daughters, by whether or not they had lost a child

Opinion	Wives				Husbands			
	Sundanese		Javanese		Sundanese		Javanese	
	Loss	No loss	Loss	No loss	Loss	No loss	Loss	No loss
ADVANTAGES OF CHILDREN								
Economic help in old age	14	14	36	31	10	6	31	26
Help with housework	16	11	14	11	5	4	8	6
Love, companionship	7	11	3	3	4	4	2	3
Stimulation, joy, happiness	13	21	3	9	16	18	2	4
Family continuity	17	19	18	9	24	32	13	19
DISADVANTAGES OF CHILDREN								
General expenses	9	8	26	18	22	24	32	28
Reduced freedom	8	10	1	2	2	4	0	1
Worry about children's health	36	34	42	37	23	20	30	33
Unpleasant aspects	14	11	8	10	9	14	14	9
MOST IMPORTANT REASONS FOR WANTING MORE CHILDREN								
Help in old age	28	20	35	30	15	14	33	21
To improve marriage bond	10	13	10	14	9	9	14	12
Family continuity	10	7	4	5	10	11	6	9
MOST IMPORTANT REASON FOR *NOT* WANTING MORE CHILDREN								
Financial burden	43	40	41	39	47	44	48	45
Worry about sick children	11	10	18	20	6	1	14	13
Too old	10	13	10	14	9	9	14	12
Overpopulation	1	2	2	2	4	6	4	7
REASONS FOR WANTING A SON								
Help in business	21	21	60	51	33	22	61	58
REASONS FOR WANTING A DAUGHTER								
Help with housework	72	74	79	74	77	71	88	81

percentages who mentioned being tied down by children (one of the opportunity costs) were small, this disadvantage was more salient to those who had not lost a child than to those who had. The remaining disadvantage mentioned frequently–unpleasant aspects–showed no clear association with the experience of child loss, but the relationship between child loss and the responses "too old" and "problems of overpopulation" as reasons for not having more children, although weak, were in the expected direction.

Though more extensive analysis of child loss effects will be done, the basic patterns already seem clear. Those who had lost children were more likely than others to be poor, not well educated, old, married long, of high parity, and rural. Slightly over half of them had lost only one child, but a significant proportion (40 percent) had lost more than one. The effects of loss on the value of children showed many consistencies across groups of respondents. Those who had experienced the loss of a child placed greater emphasis on the instrumental advantages of children and, conversely, children's economic costs; but it is likely that these patterns are related more to underlying educational levels than to the child-loss experience.

The patterns of responses thus suggest that values that might be affected by child loss were held to a fair extent by all respondents, regardless of whether they had experienced a child death. This finding is consistent with the proposition that in societies like Indonesia, where the rate of infant and child mortality is relatively high, even if one has not lost a child personally, it is virtually certain that one has close friends, neighbors, or relatives who have lost a child, and consequently it is unlikely that sharp value differentials will be found between those who have and have not lost children. The results probably indicate a general effect of the prevailing mortality patterns, and sharper differentials will only occur as child loss becomes a culturally rare event rather than the personal experience it is for the Sundanese and Javanese people whom we surveyed. Further implications of this pattern of child loss experience for health and population policies are discussed later in the paper.

Desired and ideal family sizes

One of the most interesting issues in any demographic survey concerns respondents' perceptions of family size. As summarized earlier in the discussion of Table 3, in most instances the family sizes VOC respondents desired and considered ideal were quite similar for both male and female respondents and for both Sundanese and Javanese. For the total sample in each region the basic pattern was that fewer than 10 percent opted for family sizes of zero to two children, about 20 percent expressed a desire for three, approximately 30 percent preferred four, another 20 percent preferred five, and some 20 percent preferred six or more. The main contrast between desired family size and ideal family size was that for the ideal measure there was much greater heaping of responses in the three- and four-children categories and consequently far fewer saying five or more children were an ideal family size. In general, desired family size was larger than ideal family size: to a considerable extent desired family size simply reflected reality—that is, respondents' actual fertility experiences.

When we analyzed desired and ideal family sizes by the basic characteristics of female respondents (Tables 27 and 28), several important patterns became clear. There was a tendency for urban respondents to express preferences for three and four children, whereas rural respondents were more likely to prefer four and five. When preferences for three, four, and five children were combined, however, the percentages were virtually the same, with 60 to 70 percent of respondents saying they preferred family sizes in this range. The urban/rural differential was more apparent in the ideal measure, where urban respondents were much more likely than rural wives to state three children as an ideal. Furthermore, women with rural and urban experience expressed family-size preferences more like those of rural respondents than like those of urbanites, the majority of both mixed-experience and rural respondents preferring a family of four children. A substantial number of women (about 25 percent) with mixed experience expressed a preference for six (or more) children; this finding is almost entirely attributable to their actual parity, duration of marriage, and age. The preferences mainly reflected the demographic realities experienced by these respondents.

The age-at-marriage variable indicates that women who married late were more likely than others to concentrate their family-size preferences around three or four children. Only among Sundanese marrying at age 25 or later was there a substantial proportion opting for two or fewer children. Women marrying at ages 18–20 also showed some preference for small families, but this pattern was weaker. It may also reflect a social desirability bias in the answers, and we do not believe the response pattern can be interpreted as indicative of a trend. Classifying female respondents by length of marriage yields more interesting results. Those married less than five years were likely to desire and idealize three and four children much more than any other number. This section of Table 27 shows one of the only places where a degree of consistency was obtained for a moderate (i.e., 15 percent) proportion choosing zero to two children as a desired or ideal family size. Respondents married for more than 15 years revealed sharper differences between ideal and desired family sizes. Almost half of these women desired family sizes of five or more children – a preference that again reflected actual parity experience; but these same respondents idealized a family size of three or four children. Women married a shorter length of time were more likely than women married longer to prefer small families, and this relationship presumably reflected both the effect of family planning propaganda and the stage of the family life cycle they were in. Given that 60 percent of female VOC respondents had married at ages below 18 and that most of those married for shorter periods would remain at risk of pregnancy for some years to come, the interpretation of this apparent shift toward a preference for smaller families must be made with considerable caution. Reasons for this caution are elaborated below.

Years of schooling showed no strong correlations with size of family desired or idealized. Nonliterate women expressed preferences that were more evenly distributed from three to six or more children than did those with more education. The higher the level of schooling the more likely was the stated preference to be for three or four children. This pattern was even more apparent in the ideal measure. As with the length-of-marriage measure, the relatively high (25 percent) proportion expressing a desire for six or more children appears to indicate that their actual reproductive experience influenced their desired family size.

The interaction of age and parity can be seen readily in Tables 27 and 28. The majority of young, low-parity women expressed preferences for three and four children, and only 16–17 percent of this group desired smaller families. The extent to which desired and ideal measures reflected actual parity can be seen better in the group who were over 30 but of low parity; it was this group who expressed the greatest preference for families of fewer than four children. This pattern almost certainly demonstrates the effect of the respondent's parity on the desired and ideal measures.

In addition to the general patterns shown in Table 27, we examined preferences for additional children using an unfolding technique developed by Coombs (see Coombs, 1974). The questions for this technique force respondents to indicate whether, if they could not have their preferred number of children, they would want more or fewer.

TABLE 27 Percentage of wives indicating specific desired and ideal

	Sundanese						
	Desired number					Ideal	
Characteristic	0–2	3	4	5	6+	0–2	3
Total %	9	21	29	18	24	9	23
Residence							
Urban	6	22	32	18	22	7	29
Rural	10	20	28	18	24	8	14
Urban/rural experience							
Urban only	6	23	31	17	24	9	25
Rural only	10	21	28	17	24	9	23
Both	6	19	30	20	24	9	23
Age at marriage							
8–14	9	18	24	18	31	6	21
15–17	8	20	28	19	25	9	22
18–20	11	23	30	15	21	11	24
21–24	3	26	42	18	11	8	34
25+	18	27	36	18	0	10	33
Years of marriage							
0–5	15	30	43	8	5	16	31
6–10	9	32	35	15	10	10	29
11–15	4	13	31	27	25	6	20
16–20	8	11	20	21	41	5	17
20+	12	17	7	15	49	6	16
Years of schooling completed							
0–2	13	19	24	21	23	10	19
3–5	11	20	26	16	28	9	21
6–8	6	21	29	18	23	10	23
9–11	3	17	36	20	24	1	26
12+	6	32	36	18	9	10	32
Age and parity							
< 30 years, 0–2 children	17	31	41	8	3	16	32
30+ years, 0–4 children	42	31	18	6	2	26	27
< 30 years, 3+ children	0	22	31	28	19	4	21
30+ years, 5+ children	1	10	21	23	45	2	17
Level of monthly per capita household expenditure							
High	9	21	31	18	22	8	25
Medium	10	21	26	21	22	9	23
Low	9	18	27	10	36	9	16
Listen to news on radio?							
Every day	6	20	28	20	26	7	23
Few times per week	10	22	31	22	16	7	21
Rarely	9	21	32	16	22	7	29
Never	15	21	25	13	25	17	17

number of children, by background characteristics and cultural group

			Javanese									
number			Desired number					Ideal number				
4	5	6+	0–2	3	4	5	6+	0–2	3	4	5	6+
42	14	12	9	24	27	19	20	8	27	34	29	12
38	12	14	8	28	31	13	21	9	34	35	16	6
43	15	12	9	23	26	21	20	8	26	33	29	14
38	14	13	8	27	33	13	19	10	30	38	16	6
43	14	11	10	23	26	21	20	8	26	32	20	14
42	13	13	7	23	27	17	25	10	32	37	15	6
47	10	16	10	23	24	21	22	8	25	32	19	16
42	15	12	8	21	26	21	23	8	25	33	18	14
40	14	11	11	27	29	16	16	10	29	36	19	6
31	17	11	2	42	24	16	16	4	41	28	20	6
57	0	0	9	29	44	9	9	5	52	43	0	0
42	8	3	15	33	35	11	7	16	41	31	12	0
41	12	8	8	33	33	18	7	8	35	36	16	6
43	19	12	8	26	30	21	15	7	28	36	16	12
39	18	21	7	19	21	22	30	8	22	20	24	15
47	11	19	11	13	20	19	37	5	18	35	20	21
36	22	13	10	23	24	20	22	7	24	33	20	15
44	13	13	7	25	28	22	18	8	25	34	20	13
40	14	12	8	25	35	17	15	10	35	40	10	5
48	13	12	6	29	27	15	23	8	46	31	12	2
43	7	8	5	30	35	15	15	8	31	33	20	8
41	7	3	16	34	32	12	6	12	38	33	12	5
37	10	0	32	34	21	7	5	22	39	28	8	4
42	20	13	0	22	34	29	15	7	26	34	21	11
44	17	21	0	15	24	25	36	2	18	36	25	19
43	14	9	12	30	27	14	17	8	39	34	10	8
40	15	13	8	22	26	22	22	7	23	35	20	14
41	11	23	8	22	28	20	22	9	24	30	24	12
41	15	13	6	30	29	16	19	9	37	33	15	6
49	14	8	7	21	49	14	8	6	41	39	6	7
41	12	11	8	24	26	23	19	6	18	35	20	11
40	13	14	11	21	26	19	22	10	22	32	20	16

TABLE 27 *(continued)*

	Sundanese						
	Desired number					Ideal	
Characteristic	0–2	3	4	5	6+	0–2	3
Currently using contraception?							
Yes	5	17	32	19	27	7	23
No	12	24	28	23	24	10	25
Pregnant	9	13	14	19	15	9	22
Experienced child loss?							
Yes	8	18	27	18	30	7	22
No	9	23	30	18	19	10	24

TABLE 28 Percentage of husbands indicating specific desired and group

	Sundanese						
	Desired number					Ideal	
Characteristics	0–2	3	4	5	6+	0-2	3
Total %	8	20	27	19	26	10	30
Residence							
Urban	8	21	29	21	22	11	42
Rural	8	19	26	19	27	9	27
Urban/rural experience							
Urban only	15	23	27	19	15	24	48
Rural only	7	20	24	22	26	9	27
Both	8	19	28	17	27	9	31
Age at marriage							
8–14	0	25	25	50	0	0	0
15–17	5	24	27	21	24	9	31
18–20	13	15	26	18	28	13	22
21–24	7	21	24	19	29	8	31
25+	5	23	33	20	20	9	38
Years of marriage							
0–5	10	37	31	16	6	10	39
6–10	10	30	34	18	10	11	33
11–15	5	13	30	29	23	8	31
16–20	12	9	21	21	36	15	16
20+	5	14	15	13	53	6	30

			Javanese									
number			Desired number					Ideal number				
4	5	6+	0–2	3	4	5	6+	0–2	3	4	5	6+
45	13	12	6	21	27	23	23	7	26	34	20	13
41	13	11	12	30	27	16	16	10	31	33	16	10
36	19	14	3	14	28	25	31	3	18	37	21	20
39	14	18	11	24	25	19	21	9	25	32	18	15
44	14	8	8	24	28	20	20	8	29	34	19	10

ideal number of children, by background characteristics and cultural

			Javanese									
number			Desired number					Ideal number				
4	5	6+	0–2	3	4	5	6+	0–2	3	4	5	6+
34	18	8	10	23	28	21	18	10	31	32	20	7
27	17	3	8	21	33	20	18	8	34	31	21	5
35	19	10	9	24	27	21	18	10	30	32	19	10
16	8	4	6	23	40	23	8	9	31	38	20	2
37	17	10	9	23	28	21	19	9	30	33	19	8
33	21	7	9	24	22	20	24	12	34	23	23	7
50	50	0	0	0	0	0	0	2	37	39	17	5
29	20	11	9	30	27	20	14	13	20	41	18	8
38	17	9	10	18	30	20	21	13	34	24	22	6
30	20	11	11	22	25	23	18	3	42	27	21	8
34	15	3	6	27	31	19	17	15	30	30	18	7
29	16	5	14	44	30	8	3	19	42	25	8	6
38	11	7	8	33	36	16	6	11	40	30	15	4
32	19	8	9	24	36	20	11	10	33	31	31	5
38	20	11	11	12	24	26	25	10	23	36	22	10
29	26	9	6	14	18	24	36	6	26	33	25	10

TABLE 28 *(continued)*

	Sundanese						
	Desired number					Ideal	
Characteristics	0–2	3	4	5	6+	0–2	3
Years of schooling completed							
0–2	8	14	25	31	22	17	29
3–5	9	22	19	19	30	10	28
6–8	12	14	30	18	26	8	23
9–11	3	26	24	21	26	9	37
12+	4	23	36	16	22	10	38
Listen to news on radio?							
Every day	8	19	28	18	28	7	23
Few times per week	7	23	25	19	26	7	21
Rarely	8	21	28	24	17	7	29
Never	17	12	17	21	33	17	17
Currently using contraception?							
Yes	6	18	32	15	29	10	32
No	10	22	24	18	26	10	31
Pregnant	2	16	29	33	21	5	25
Experienced child loss?							
Yes	8	15	25	20	33	8	27
No	8	23	28	19	22	10	32

Analysis of the series of questions by parity and age-parity groups has indicated that when given the forced choice most repondents moved toward a preference for a completed family of four or five children, rather than fewer than four or more than six. This pattern holds for both sexes. In other words, the results indicated that the underlying preference structure was substantially and consistently toward families of four and five children, not toward families with fewer than four children.

Regardless of the characteristic being focused upon, this preference structure was evident. Only 5–15 percent of respondents expressed a preference for families of fewer than three children (i.e., what observers from developed countries might consider small families); more than half of the respondents preferred families of three and four children, and the remainder opted for families of five or more children. Most of those expressing a preference for parities greater than four seemed to be affected by their actual fertility experience, even though their ideal of family size clearly favored three and four children. To put it another way, on the Coombs measures most of those who

			Javanese									
number			Desired number					Ideal number				
4	5	6+	0–2	3	4	5	6+	0–2	3	4	5	6+
20	29	6	11	24	25	20	19	11	31	31	20	7
33	19	9	11	23	26	20	20	8	32	35	19	9
39	18	12	3	25	31	25	16	9	30	30	22	9
29	20	6	9	9	40	30	23	9	18	41	23	9
35	12	5	8	26	33	18	16	12	42	26	18	2
41	16	13	6	21	40	14	20	5	35	35	19	7
49	14	8	7	20	27	25	20	11	23	22	26	7
40	12	11	11	24	25	22	17	11	33	29	19	8
40	13	14	10	25	26	21	18	11	29	35	19	6
36	16	6	7	19	34	19	21	10	28	36	19	6
34	16	9	13	28	24	23	12	12	37	26	20	5
26	34	10	2	19	30	29	30	2	20	37	24	17
30	24	10	12	22	26	20	19	9	25	32	18	15
36	15	7	8	24	30	21	18	8	29	34	19	10

preferred small families had already had them (presumably owing to child loss or subfecundity in most cases); and the majority of respondents who were in their early and prime childbearing years expressed preferences for family sizes of three, four, and five children, thus reflecting the normative experiences of the regions surveyed. An additional comment should be made about the measure of ideal family size: A central premise behind the unfolding techniques generally and the particular one developed by Coombs (1974) is that it comes closer to gauging psychological reality than measures like ideal family size; by implication the Coombs measure has greater reliability and validity than stated ideal family size. In other words, our interpretation is that it is more likely that actual psychological preferences of VOC respondents in Indonesia centered on four or five children rather than on three or four, even for those who stated three as their ideal. The preferences showed no major effects of either contraceptive practice or child mortality, a finding that may suggest in the former case that the main use of contraception was for spacing or prevention once childbearing was complete rather than for limitation of family size to a small number, and in the latter case that child loss was a common concern in the community, affecting both those who had experienced it and those who had not.

IMPLICATIONS OF THE FINDINGS

Prospect for a two-child norm

The data presented in this report bear on the question of whether a two-child family norm is emerging in Indonesia, particularly in Java. The data concerning preferences for numbers of children, both desired and ideal, provide little evidence that either Sundanese or Javanese VOC respondents preferred small families. The majority of male and female respondents in both cultural groups opted for families of three, four, or five children; slightly more favored three and four than favored five for their ideal number but gave four and five more often as their desired number. Child loss was prevalent but did not produce strong differentials in either the values attached to children or family-size preferences between those who had experienced child mortality and those who had not.

Rural, poor, less literate respondents, who constituted the majority in both Sundanese and Javanese survey areas, were more likely than other respondents to prefer larger families. However, even urban and highly literate respondents tended to prefer families of three or four children rather than smaller ones. On Java, under prevailing social conditions, it is almost certain that a family of three or four children is considered to be small; families of two or one are anomalous. Those who expressed a preference for families of one or two children were of two types: those who were young and recently married, and those who were older and married longer than ten years but of low parity. The existence of the former group may indicate an increasing preference for smaller families in Java, though they were still a small minority within their own age group, whereas the latter group apparently were rationalizing their actual experience—they preferred a small family because that is what they had, whether through child loss, infecundity, or other circumstances beyond their control. A small number of couples indicated a desire for small families and were practicing contraception, but the proportion seems too small to have a demographic effect or to influence the normative structure of the society. A shift toward a smaller-family norm may possibly be seen in respondents' preferences for families of three and four children rather than four and five, but this transition has rather different demographic implications. When we did extensive analyses with controls for parity, length of marriage, practice of contraception, and child loss, this pattern of a small shift in family size became even more apparent. There is little evidence in our data that Sundanese and Javanese are moving at all rapidly toward a two-child family norm. The substantial proportions of VOC respondents who desired and idealized families of three and four children (rather than five or six) may reflect a downward shift in normative preferences, but evidence to support such an interpretation is weak and there are few other surveys with which to compare our results. The behavioral evidence strongly suggests that the couples surveyed were engaging in reproductive behavior that would yield a completed family size of about four children–provided their children survived. At present in the sample areas, where, after ten years of marriage, one woman in three can expect to have lost a child, the goal of bearing three or four children provides some insurance against ending up with few or none. Research reported by T. Hull (1975) and White (1976) suggests that often couples end up with fewer, rather than more, children than they want.

When considering the policy implications of these findings, one must bear in mind additional considerations.

First, even though young respondents were slightly more likely than older ones to prefer smaller families, most of them had married at early ages (under age 18). If they have only two or three children and continue to be exposed to the risk of pregnancy, with or without protection–at the time of the survey nearly 50 percent of those exposed to risk were not using contraception–it is likely that they will have additional unplanned pregnancies. As Keyfitz (1971) has demonstrated, even with contraception the chance of additional pregnancies is quite high, especially when inefficient methods (such methods were condom and rhythm in use by over half of the 30 percent of VOC respondents who were using contraception) are adopted. Consequently there seems little chance, unless sterilization is chosen or abstinence is diligently practiced, that these young couples will actually attain their smaller families. Postpartum amenorrhea and prolonged breastfeeding may mitigate the risk somewhat but not sufficiently to yield completed fertility rates much below four or five children per woman.

Second, given the large number of couples who experienced child mortality and the lack of differentials among those who had and had not lost a child in the number preferences or values of children, it is likely that as long as infant and child mortality remains high most couples will see themselves at risk of having a child die whether they themselves have experienced a loss or not. From the evidence of the present study and of others (see Singarimbun and Manning, 1974:33) it is almost certain that both replacement and insurance effects are operating in couples' fertility planning and will continue to do so until it becomes clear in the Sundanese and Javanese cultural contexts that when children are born they are likely to survive. Substantial attention needs to be paid to the reduction of infant and child mortality before we can expect the average Sundanese or Javanese couple to have a family of fewer than three or four children. Such a change in fertility norms is likely to be a slow process. Furthermore, it is likely that if child survival does substantially improve, it will take time for couples to perceive the improved chances for child survival. During the adjustment period, which will probably last most of a generation, the number of surviving children per couple will increase, yielding larger completed families and shorter intergenerational intervals; both will tend to generate increased rather than decreased population growth rates.

A third consideration concerns the time it takes for a shift in norms to be reflected in behavior. When considering the prospects for a two-child norm it is of course critical to bear in mind the time-lag, due to the age structure of the population, before replacement-level fertility results in a stationary population size. As McDonald (1975) has shown for Indonesia, under the most reasonable assumptions (attainment of a replacement fertility level in 30 to 50 years, improvement in expectation of life at birth to about 60 to 70 years), the population of the country would reach about 400 million by the late 21st century before natural increase would cease. At least half of this number would probably be living in Java, even if efforts to resettle some of Java's population in the (relatively) less crowded outer islands were to continue. The information from the Value of Children Study reported here suggests that the attainment of replacement-level fertility is not likely to occur in the foreseeable future, even in those areas of Central Java where, as the study also shows, the use of family planning is considerably more prevalent than in Indonesia as a whole. Other reasons for caution about the achievement of a two-child norm are found in responses to questions concerning reasons for using contraception (most respondents disapproved of its use for delaying the birth of the first child) and the degree of concern about overpopulation on Java (most did not feel it to be particularly important and did not consider it a reason for having fewer children).

When these points are combined with the positive values VOC respondents attached to children for economic and psychosocial reasons, it becomes even less reasonable to expect fertility levels to drop substantially among Sundanese and Javanese for some time to come. As discussed earlier, there are numerous cultural patterns that reinforce the instrumental and psychosocial value of children in Indonesia. Children perform household maintenance tasks, feed animals (often gathering the food at some distance from the dwelling), gather firewood, and perform many other tasks required in predominantly rural, agricultural societies. Furthermore, as in many developing countries, in Indonesia children engage in petty trading and other tasks that permit adults to earn cash income by freeing them from childcare. Although the costs of rearing children may provide pressure for smaller families, it is important not to underestimate the positive values of children that favor larger family sizes. As the data reported here show, there are substantial pressures on Javanese couples to have what, in developed societies, would be considered moderate-sized families. Most Indonesians probably view such families as small, particularly given infant and child mortality levels. As we have indicated, shifts that will contribute to reduced fertility are taking place in the VOC sample areas, including shifts in reproductive norms, increased use of contraception, and strong government encouragement of family planning. These shifts must be seen in the context of Indonesian history and culture, however. Within that framework the changes are important but the values attached to children are not likely to change rapidly or in numerically substantial terms in the foreseeable future. The shifts that are taking place are important cultural changes and encouraging but for the immediate future are not of much demographic significance. Before the population of Indonesia becomes stationary there will be a substantial increase in its size, even if a shift to a two-child norm were to occur immediately. Our analysis suggests that such a shift is likely to be quite slow in coming, and therefore optimism about Indonesia's ultimate population size or the slowing of its rate of growth in the near future is not warranted.

Research implications

Additional research on the value of children in Indonesia is needed to provide information that is directly relevant to development efforts and population policy planning. Such policy-oriented research needs to be designed, implemented, analyzed, and reported in a relatively short time in order for the findings to be available for policy formulation. General considerations suggest that much of this research be done on a smaller scale than that of the present study, using village and regional study designs and combining psychosocial and anthropological methods. Although large-scale VOC studies do not seem particularly desirable, there is a need to monitor prevailing VOC norms and the effects of particular programs and policies on them. Elements of the VOC research design incorporated into smaller-scale studies can facilitate such monitoring and provide checks against the baseline data presented in this study. As always, there is the paradoxical need to use our research resources efficiently and avoid excessive duplication and yet to maintain sufficient sampling of norms, attitudes, and behaviors to know whether they are changing systematically or episodically.

The following types of research would provide information that would further our understanding of the relationship between various sociocultural patterns and demographic change in Java.

First, it would be useful to have several studies that, for various ethnic groups, combined the collection of psychosocial data on the value of children with anthropological and economic data of the type reported by White (1976). The collection of each type of data by itself makes it difficult to see clearly the relationship between children's place in a community and reactions to them by adults, parents and otherwise, in the community. Such studies would make it easier to understand empirically the instrumental and psychosocial contributions of children to the community and thereby would provide a better framework for understanding the values associated with children.

Second, it would be useful to have a series of small-scale studies that examined the relationship between child mortality and the parents' decision to attempt replacement of the lost child (Singarimbun and Hull, 1977). Such studies are particularly needed in Java, given the persistent high rates of child mortality. A related topic that may deserve even higher priority is how people perceive the community patterns of child mortality; research on this topic is needed to gain an understanding of the sociocultural meaning of child mortality and the extent to which couples, regardless of their personal experience, shape their reproductive behavior on the basis of their perceptions of community normative experience.

A third, critical topic requiring further study is the perceived and actual security (both instrumental and psychosocial) that couples associate with children. A longitudinal study of this topic would be desirable but also costly in time and money. Consequently a well conceived cross-sectional approach should be used, focusing on parents aged 45 or over, to determine what types of help they expected and were actually receiving from their children. Discrepancies between expectations and actuality would be important to document. Parents' expectations and experiences are likely to affect the degree to which social security schemes influence fertility behavior. If, as White suggests (1976:316–17), there is a considerable disparity between anticipated help and real help from children, it may be that social security schemes will have little effect on fertility patterns.

A fourth topic needing further research concerns the extent to which culture-specific conceptions of the small family are already operating. Although our questions did not probe this issue specifically, it is probable that, given prevailing levels of infant and child mortality, poverty, and community norms in Java, most Sundanese and Javanese consider a three- or four-child family to be small. It is even likely that they regard a family of fewer than three children to be undesirably small, as the chance of child loss seems high. Consequently it is of interest to understand how the concepts of small and large families relate to the family-size norms advocated by government family planning programs. To investigate this topic requires more attention to humor, marketplace gossip, and other forms of daily expression that reflect prevailing beliefs. Our data suggest that few Sundanese or Javanese would seriously consider having a two-child family. Our evidence also suggests that more attention needs to be paid to the meaning couples attach to particular numbers and combinations of children. A serious attempt to develop a two-child family norm in Indonesia requires an understanding of such issues as they relate to resistance to change and the persistence of prevailing fertility patterns.

A fifth topic concerns the lack of data on Sundanese and Javanese youths (as well as those in other ethnic groups) before they marry. The lack of information on family-size socialization is serious and needs to be redressed. Given the still relatively young ages at marriage observed in Indonesia (despite recent laws raising the minimum age at marriage to 16 for women and 19 for men, it is still relatively easy to bypass that formal rule) and the relatively long exposure to risk of pregnancy, it is desirable to see what young people are expecting in their own lives before they actually marry.

The sixth topic needing study is the relationship between media exposure and various family planning attitudes, beliefs, and behaviors. The results of our study are ambiguous. Insofar as family planning advocates rely on messages carried by the electronic media, it is desirable to know what, if any, effect the messages have. Similar questions need to be asked regarding newspapers and other print media as well. From the data collected in our study there is a slight indication that media exposure as such has little effect on family planning attitudes and practice. That impression should be checked.

In addition to the usual KAP survey data, it would be useful to have a better understanding of why people in Java are using contraceptives and how they perceive their own use of them. The observed pattern of use reported here suggests that several factors other than the desire to have small families (i.e., fewer than three children) are operative.

The eighth suggested research need is for information about childcare and nutrition patterns. The lack of such information makes it difficult to know the extent to which child and infant mortality are related to poor nutrition and disease. The high rates of mortality found in our study, combined with the Hull and Rohde (1978) findings, point to the need to determine the extent to which cultural beliefs about the care and feeding of children when they are born, when they are well, and when they are ill affect survival and mortality. Such an understanding would also help us to anticipate the possible demographic outcomes of preventive measures such as those suggested by Hull and Rohde.

Finally, it would be particularly useful for studies in Indonesia to work out a reliable indicator (or multiple indicators) for ascertaining socioeconomic status. As seen in the present study, it is difficult to select a meaningful measure, although the level of schooling seems to be a particularly strong candidate. The translation of socioeconomic status into rice equivalents seems to overstate the degree to which residents of West and Central Java are well-off, however. In addition, future studies should attempt to take careful note of land ownership and land use information, which this survey unfortunately missed. We would also note in passing the limitations of standard census categories of occupations. The lack of distinction made between various types of rural workers makes it virtually impossible to make meaningful comparisons between our type of survey and national census data. The census categories need to be culturally meaningful if they are to have statistical use for either national or international comparisons.

Other research topics are suggested by the results of the present study, but these nine seem to be the main ones that might have bearing on immediate and medium-term population and development policies.

The value of further VOC work

There can be little doubt from the findings reported here and from the parallel work cited earlier that children are highly valued in Javanese society and in other ethnic groups on the island of Java as well. Of particular interest is the confirmation that a substantial portion of the value of children has to do with the psychological and emotional satisfaction they provide, even for the poorest rural respondents. While the emotional value of children is not surprising, our finding contradicts the body of literature that has stressed the importance of the economic value of children to the virtual exclusion of social and emotional advantages and disadvantages. If family planners and development planners recognize in their policies the pervasiveness of the social and emotional values of children to Javanese couples, there may be little need for further VOC studies as such in Java or even elsewhere in Indonesia. Our findings suggest that development planning that aims primarily at the improvement of economic conditions as the means to slow population growth may be frustrated in the Indonesian cultural context. Population policies must take account of the high social value placed on children as children, regardless of their economic utility.

As indicated elsewhere in this report, one policy issue needing attention is the relatively high incidence of child mortality. Other related policy concerns pertain to health and nutrition problems faced by many Indonesian families. Parents' aspirations for their children are in need of better understanding, along with the relationship of those aspirations to family welfare and family structure. Planners and researchers may be tempted to elaborate fine differences between the values of children in one ethnic group or another, but doing so may be fairly wasteful. From the population planning and policy standpoint what is needed is not the elaboration of fine differences but the development of policy-oriented research that seeks to identify specific means by which the pervasive and persistent value of children for social and emotional, as well as economic, reasons can be changed. Although it might be desirable to collect data for each major ethnic group so that comparisons could be made, such academic refinements might simply confirm general patterns established elsewhere and contribute little to substantive policy development. As our data reveal, there are value differences between the Sundanese and Javanese that are related to education, economic status, and occupation. Differences in the ways children are valued may also be related to geographical features that determine access to health services when children are sick and at risk of dying; this possibility needs to be examined systematically. Throughout the Indonesian archipelago there are almost certainly even more variations to be found.

However, resources in the form of money, time, trained personnel, and institutional support are not sufficient to devote large projects to continuing VOC studies simply for academic reasons. Particularly in light of the time frame implied by McDonald's analysis of Indonesia's population growth potential, the selection of topics for future study should be carefully monitored.

First, as previously indicated, it would be desirable to collect data for several limited-scope, village-level studies of other major ethnic groups simply to gather empirical evidence about the extent to which they share the values of the two most populous groups found in this study. Such studies would need to have a common core set of survey questions. Some VOC information has been collected in community studies, but there is little information from the outer islands and much of the existing data focuses almost exclusively on Javanese communities. Though population pressures are less severe outside Java and Bali, the problem of rapid population growth and pressure on resources is a national one requiring a unified—and prompt—response. Small, village-level studies can be done relatively quickly, on small budgets, with the resources of regional universities; and with careful supervision they could be used as training exercises for students. Furthermore, if properly managed and coordinated, such studies could provide data suitable for basic comparative analyses—as was the case with the present study. They would also provide baseline data that could be referred to for evidence of change in values ascribed to children. Presumably they would provide convergent evidence of the extent to which programs focusing solely on economic values are unlikely to affect fertility significantly.

Second, future studies that seek to understand the value of children in its fullest sense should combine the essentials of White's (1976) community study techniques with the psychosocial approach in order to gain a more balanced picture of what children actually do and how they are seen by their parents. Despite the disadvantages of self-report data, the fact remains that, whether collected through anthropological techniques (which are often statistically unrepresentative) or through psychosocial techniques (which may be insufficiently sensitive to cultural nuances), such data provide our primary body of knowledge of how people live their daily lives—how they think, feel, and share their main concerns, joys, and worries. Many of these thoughts and feelings concern the benefits and problems associated with children, and in the study of fertility these main sources of data cannot be ignored. The tendency of some authors to discount psychosocial data because such data point to uncomfortable social truths does not make the truths go away; in the present study the evidence indicates that a high value is placed on children in a setting where child mortality is common and that there is a desire for families considered to be small in that setting but whose numbers lead to rapid demographic growth.

We need to know more about family-size socialization patterns through research of the kind done by Palmore (1974) and Kee (1980). Such information is seldom available in countries of the Third World, and Indonesia is no exception. Given the youthful age structure of their populations, young ages at marriage, and the rapid growth, it is inappropriate to continue using currently married women as the main source of data. Although surveys of young people entail difficulties (e.g., the problem of interviewing unmarried girls in Islamic societies), information about their values and attitudes toward children is urgently needed. Intervention policies should be geared to the 47 percent of the Indonesian population under age 15, who are the parents of the next 20 years, as well as to reproducing adults. It would be useful to have information about the value of children as it is represented in story, gossip, drama (e.g., puppet plays), and the media. It would also be useful to know specifically how impoverished groups cope with their day-to-day nutritional, shelter, health, and energy needs as these needs bear directly on the well-being of children and indirectly on fertility. What are the priorities in the allocation of food to children? Is there any sex preference of the kind Scrimshaw (1978) suggests, with consequent selective child loss? Are children selectively cared for when ill on the basis of either age or sex? What beliefs are associated with such decisions if they are indeed made?

A related type of research concerns perceptions of short- and medium-term futures. What do people see in store for themselves and their children in the days, weeks, months, and years to come and how do they perceive population and development programs as affecting the outcomes? To what extent do they believe that the effects of such programs are beneficial to them? How are their perceptions related to status and education? Program effects on land tenure and the value of children also need to be better understood—for example, effects on inheritance, security, and family strain—for they may contribute to pressures to change fertility behavior.

There is a paucity of data on major cultural groups other than Javanese and Balinese. The anthropological evidence has been quite unevenly collected. This imbalance needs to be redressed so that we can learn more fully the extent to which cultural patterns and beliefs associated with children differ from ethnic group to ethnic group. For instance, do Sundanese have a less positive view of children than Javanese and, if so, how might it be related to their relative lack of worry about children's health as found in this survey?

Though it may be seen as having low priority, it would be useful to collect value-of-children data on migrants to determine whether migration generates a perceived need for larger families. Such research can be done as part of other studies that compare migrants with control groups from the same villages or regions, and it would have both theoretical importance and policy relevance for Indonesian planners.

Another topic needing further investigation is the extent to which parents misperceive the productive ages of children or devalue the contributions of children to the household economy. White stated (1976: 274–6) that most Javanese parents overestimated the ages at which their children began to make substantive contributions to the household. Singarimbun (1971:251) has pointed out that early socialization of children in some household maintenance activities is initially seen as play by the parents but as productive by outside (especially economically oriented) observers. This observation points to a general need for researchers to have more thorough understanding of the concepts and categories used by the people they study.

Finally, several issues related to the value of children need to be studied in a broader framework of development and population policy. For instance, it would be desirable to know how policy-makers perceive children, people, and the labor force and how they relate these perceptions to population and development policy. This would entail a study of the degree to which politicians and researchers themselves understand the cultural and resource constraints facing a rapidly changing society like Indonesia. Recent discussions within Indonesia indicate discrepancies between the views of policy-makers and those of the society they are seeking to change. As numerous examples from the developed and developing world demonstrate, policies that ignore or belittle cultural values, beliefs (especially religious beliefs), and daily human experience ultimately lead to social disruption and even revolution. In Indonesia the persistent and pervasive economic, sociocultural, and psychological values attached to children are likely to play an important role in the success or failure of development and population programs for decades to come.

Policy recommendations

The following observations and policy recommendations are set forth with the usual caveats about the limitations of the sample and data. Within that framework we have identified nine basic issues affecting demographic and development policy.

1. Javanese and Sundanese value children for a variety of reasons. The values attached to children by the two groups are not identical but do have common components. For family planning the major implication is that the number of children desired and being produced ranges from three to five; virtually no one in either group wanted smaller families. Family planners need to take this finding into account in attempting to create a two-child family norm. It is likely to take a long time to create such a norm and to require several fundamental changes in Indonesian society.

2. One major change likely to be required is a sharp reduction of infant and child mortality. Though this need has been voiced by others (e.g., Hull and Rohde, 1978), it is worth noting again. Initially the

effect of reducing mortality will probably be larger families, not smaller. It will take time for communities to perceive the improved chances of child survival, and this delayed perception will add to the lag effect of reduced mortality on fertility change.

3. Associated with the reduction in child mortality are the nutritional circumstances of Indonesian families, a matter that requires research involving the disciplines of public health, anthropology, psychology, and agriculture. Nutritional studies in turn have implications for medical training programs (i.e., emphasis on community medicine rather than on Western-style advanced medical technology) and intervention programs (e.g., attempts to change traditional infant feeding patterns).

4. The general sanitary and health conditions of most Indonesians need to be improved before there can be substantial improvement in child and adult mortality. Successful policies will almost certainly incorporate strategies called "development from below." Local groups need to be actively, not passively, involved in the planning, implementation, and monitoring of development programs, especially self-help programs intended to suit local needs. The success of such programs will probably hinge to a significant degree on their ability to put underemployed and unemployed individuals to work.

5. It is likely that parents in Java, particularly in rural areas, will continue for some time to see children as sources of security in old age. Social security programs provide only economic security; and as the VOC data demonstrate, the security children provide to Javanese parents is social and emotional, as well as financial. A pattern of development is needed that does not weaken community and familial networks. This issue may have implications for transmigration programs.

6. Prevailing child mortality levels suggest there is a need for a mobile paramedical corps that will go to the people rather than wait for them to come to its clinics. Mortality patterns may also indicate areas in need of drug regulation. The availability of nonprescription drugs of all kinds (e.g., antibiotics) may have more negative than positive medical consequences. Greater control over the use of food additives having demonstrated adverse side effects (e.g., monosodium glutamate) may also be indicated, particularly for young children.

7. Education of the public about the effects of rapid population growth needs to be given more priority, especially in Java. McDonald's

(1975) analysis of Indonesia's age structure indicates continued rapid growth of the population is inevitable for several decades. Such growth could cause considerable human hardship in Java, beyond what is already experienced by many rural and urban-fringe people. Inasmuch as VOC respondents betrayed little awareness of the population growth rate or its implications, much more public education is indicated, through whatever media might prove useful, from traditional *wayang* (puppet) plays to television programs viewed on the community set at the market place. Educational efforts should be sensitive to Indonesians' perceptions of the world around them. Probably most people in rural Java have a limited range of experiences and no appreciation of the demographic, economic, and social implications of continued high fertility—that is, of families of four, five, and six children. It is necessary for the government and aid programs to deal with the reality of the Indonesian situation as it is today rather than as they hope it might someday be; and to develop policies attuned to this reality requires courageous political and social leadership that is attentive to the needs of people affected by the policies.

8. Economic and employment policy-makers should be aware that Indonesians (or Javanese, at any rate) do not view children simply as economic assets and that narrowly economic incentives or disincentives will fail to reduce fertility significantly. Several positive programs have already been implied—maternal and child health efforts, stabilization of food supplies, for example; others include the education of the population to a minimum literacy level and the provision of readily available surgical contraception for those who want it. Less attractive policies may have to include childbearing disincentives that may pose risks to political stability.

9. The development of a comprehensive, yet sensitive, population policy will require further information on issues relating to the value of children, fertility, mortality, and family planning experience. For the foreseeable future (10–20 years) it is probably desirable to have an organization in Indonesia, formal or otherwise, that can coordinate population research needed for policy and program development. Ideally, such a body would coordinate outside and national funding; assess community and national priorities; evaluate proposals, analysis, and reporting systems; and conduct training programs. Its activities would have to be safeguarded against personal or political whim. At present the lack of a coordinating organization wastes scarce resources

and may be causing much information to be collected that is not particularly useful for development and population planning. Advancement of demographic and social-psychological academic theory must take second priority to solutions to the immediate problems faced by Indonesia. Indonesia may wish to adopt a strategy requiring evidence from researchers, internal and external, that proposed research will directly benefit Indonesians. Currently a considerable amount of research would not meet such a criterion. The difficulty of establishing this type of assessment process is that the group conducting the assessment needs to be protected from overt political control, pressures from various commercial or academic vested interests, or efforts to prevent it from putting forward difficult or unpopular issues. Policies formulated as though children were mainly or solely economic assets fall in this category.

The development of research such as that reported and proposed here may help us to understand the dynamics of high fertility in Indonesia and its probable persistence. Only with such understanding can we develop programs that provide maximum benefit to the society, to couples faced with reproductive decisions, and to the children who are valued in a multiplicity of ways by Indonesians. The children of the present generation must eventually grapple with the urgent problems and rapid change facing the country; their task will be easier if the problems are faced squarely today. The Indonesia that they inherit and pass on to their children will, we hope, represent a unity of social experience without the abject living conditions that face so many in Java today.

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Filipinos on Oahu, Hawaii

Benjamin V. Cariño

East-West Center
Honolulu, Hawaii

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Filipinos on Oahu, Hawaii

Benjamin V. Cariño

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ABSTRACT Based upon an analysis of data gathered from the 1975 Office of Economic Opportunity (OEO) Census Update Survey of Oahu, this paper examines the extent to which all Filipinos as well as subgroups within the Filipino community have adapted to the host society (as measured by income and occupational status). Comparative data on income, occupation, education, and demographic status are reported at two levels. First, the Filipino community as a whole is compared with other ethnic groups on Oahu. Second, cross-sectional comparisons of subgroups within the community, delineated according to place of residence, place of birth, and recency of migration, are presented.

The evidence confirms the common view that Filipinos as a group occupy the lower strata of Oahu's social and economic life, reflecting the slower pace at which adaptation among Filipinos has occurred. Within the Filipino community, socioeconomic disparities clearly exist between Oahu-born and immigrants. Among the foreign-born, similar differentials are found between migrants of the early decades of the century and those who came in more recent years. Explanations for such disparities and varying levels of adaptation are offered.

Migration has historically been a common response of Filipinos to various social and economic problems. Areas of out-migration in the Philippines have been characterized by high population densities, imbalance of land ownership, low agricultural productivity, frequent calamities and disasters, and high rates of unemployment and underemployment (INTERMET/IDRC, 1974: chaps. 3, 4). Most of the migratory movements have been internal, although significantly long-distance in character, and generally to places of greater opportunity within the Philippines. The prevalence of such moves can easily be seen: In 1970, every seventh Filipino in the country had changed residence since birth, and the majority of those had moved across regional boundaries (see Flieger, 1976). Others, however, had moved across the borders of their nation to other countries.

The State of Hawaii, in this regard, has been one of the most important destinations of Filipino international migrants (Smith, 1976). Indeed, the migration of Filipinos to Hawaii is an active phenomenon that continues a pattern which started with the recruitment of sugar plantation workers from the Philippines in the early 1900s (Lasker, 1969:28–32). The Filipino community in Hawaii has grown from 21,000 persons in 1920 to more than 69,000 in 1960 and 95,000 in 1970.[1] Growth was particularly rapid in the late 1960s and early 1970s, following the 1965 amendments to the Immigration and Naturalization Act of 1952. Briefly, these amendments abolished national origin quotas and established a seven-category preference system that permits entry on the basis of kinship with persons already residing in the United States or on the basis of occupational characteristics (see Keely, 1975).

For Hawaii, the consequences of these changes in the immigration law have been dramatic. During the preamendment period from 1961 to 1965, there were 2,777 immigrants from the Philippines, or an average of 555 persons per year. In the postamendment period from 1966 through 1975, 33,117 Filipinos arrived in Hawaii, increasing the average to more than 3,000 immigrants per year (Nordyke, 1977: 42–43). A large proportion of these migrants have come from the Ilocos Coast, and, unless new measures are introduced, there is no reason to believe that the pattern will change, especially since Filipino immigrants tend to settle in areas where a similar ethnic community already exists. Although a greater proportion of Filipino immigrants now goes to the U.S. mainland than in earlier years, Hawaii continues to receive a large share. In 1976, for instance, the state received 10.4 percent of all Filipino immigrants to the United States, second only to California which accounted for 38.5 percent in the same year.

Filipino immigration to Hawaii is thus increasing, a trend which has definite implications for both the sending and the receiving societies. Among other factors, the consequences will be influenced by socioeconomic characteristics of the immigrants themselves. Out-migration implies a transfer of human capital; and the departure of highly skilled immigrants, for instance, must be viewed not only as a demographic, but also in a very real sense a socioeconomic, loss to the sending community. In the receiving society, immigration can contribute to such problems as unemployment and underemployment, the straining and deterioration of government services, congestion and overcrowding, and the growth of slum and squatter communities. In addition to these problems is the impact of increased immigration on the immigrant population itself, particularly as it affects the nature of intergroup conflicts and the degree of assimilation and economic adaptation.

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[1] The recent increase may be due to changes in definition and ways of counting "one." See Schmitt, 1973.

There are, of course, positive effects of immigration as well. Immigrants tend to be predominantly young adults, who contribute more to the "producing" portion of the age structure than to the purely "consuming" portion. Immigrants may bring with them skills that are needed in their new home; they may introduce fresh ideas and perspectives, and, in the case of frontier countries, they bring sheer numbers that are needed to exploit the empty lands.

OBJECTIVES AND MAJOR THEMES

As an aid toward understanding the possible consequences of Filipino migration to Hawaii, this paper, which is essentially descriptive, provides an overview of the important socioeconomic characteristics of the Filipino community on the island of Oahu. More specifically, it examines the extent to which all Filipinos on Oahu, as well as subgroups within the Filipino community, have adapted to the host society as evidenced in certain measures of income and occupational status. I hypothesize that the extent of adaptation is influenced by such factors as place of birth, recency of migration, demographic characteristics, and levels of educational attainment.

The analysis is organized into two parts. First, the adaptation of the Filipino community as a whole is compared with that of other ethnic groups on Oahu. This comparison provides an overview of the status of Filipinos as well as the extent to which they have established themselves in the community, particularly in their income levels and the occupations and industries into which they have moved. The factors that appear to have contributed to socioeconomic differentials among the ethnic groups are identified.

Second, subgroups within the Filipino community are similarly compared in their adaptation to the host community. The subgroups are delineated according to what seem to be the major sources of socioeconomic cleavages: place of birth and recency of migration. At the broadest level, distinctions are made between Oahu-born and foreign-born Filipinos. Socioeconomic differentials between these two groups may in large part reflect the fact of being born elsewhere and having resided there until the move, as opposed to being born and nurtured in the host society.

Variations in adaptation between migrants who arrived in the early decades of the century and those who arrived in more recent years are identified. Much has already been said about two distinct groups of Filipino immigrants to the United States: the "old wave" Filipinos who were mostly manual workers and basically of rural background, and the "second wave" migrants, mostly professional and urban in origin (Smith, 1976).[2] The success of these two groups in adapting to the new environment is expected to differ.

Two major themes that have surfaced in the analysis may be usefully mentioned at the outset. First, there are interesting socioeconomic contrasts among ethnic groups on Oahu, particularly cross-sectional variations in income and occupation. Measured in these terms, the analysis confirms the common view that Filipinos as a group occupy the lower strata of the host society's social and economic life, which seems to reflect their slower pace of adaptation. Factors contributing to this slow pace include the large Filipino immigrant population reared outside the range of American culture; the unusual character of the Filipino age-sex structure and the consequent lack of a stable family life especially among early immigrants; their late arrival; their lesser experience in a competitive trading economy; and possible resistance to Filipinos including inequalities of opportunity for participation in the occupational life of the receiving community.

Second, there are important socioeconomic diversities within the Filipino community itself (Smith, 1976). The analysis confirms the existence of socioeconomic disparities between local-born and foreign-born Filipinos: The Filipino-American, socialized in the United States and generally familiar with the environment, is more successful than the Filipino immigrant, who is often from an essentially rural background, and unfamiliar with the culture and opportunities of the host society.

Among the foreign-born Filipinos, interesting contrasts can be observed between the migrants of the early decades of the century and those who came in more recent years. In particular, the early migrants seem to have had more difficulty in adapting to the new environment as many of them were single males of low socioeconomic origins. The more recent migrant groups, by contrast, have been much more balanced in sex composition, and often from the professional classes.

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[2] Much of this variation may be traced to changes in the immigration law. See Keely, 1975.

DEFINITION OF CONCEPTS

For the purposes of this study, several key concepts are defined more narrowly than is general in the literature. The meanings intended for particular terms are given here.

Migrant adaptation

The concept *migrant adaptation* has been widely used by many scholars to refer to the overall response of individuals or collectivities to particular social and physical environments. It is a broad concept that encompasses both subjective and objective dimensions. In the words of one author, any analysis of migrant adaptation must be concerned with:

> . . . how to study or understand the factors important in determining how a migrant makes new friends, finds a job, cares for his family, participates in the informal network and takes advantage of the opportunity structure of his new milieu. It is also concerned with the elements which protect a migrant or make him more vulnerable to the stresses he encounters–so that he may become a winner or a loser, casualty or success, in terms of economic absorption, cultural integration and psychological adaptation (Brody, 1970:13).

Because of data limitations, I use the term in this paper in a much narrower sense to refer mainly to the economic experience of migrants as ultimately measured by their occupational status and income. The paper's reliance on census-type data precludes analysis of the subjective as well as other objective dimensions of adaptation.

Ethnicity

In the 1975 Office of Economic Opportunity (OEO) Census Update Survey, this paper's major source of data, ethnicity is defined by self-classification, as reported by the respondent. It thus depends entirely on the subjective identity of the person and may not reflect the "race" or ethnicity of ancestors. For this reason, it is not directly comparable to the standard United States census variable called "race." Although this approach has its own limitations,[3] the definitional problem associated with the concept is at least avoided here because this paper focuses on only one period of time. Nonetheless, it is important to keep the distinction in mind when comparing the OEO estimates with those of decennial censuses (see Schmitt, 1973).

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[3] Cases of Filipinos resorting to an "ethnic denial mechanism" because of the unfavorable stereotyped image created by the plantation laborers are reported by Jocano (1970).

Certain categories of ethnicity must also be defined (see OEO, 1976: 21). The term "Hawaiian" is used here to refer to persons who considered themselves to be solely of Hawaiian ancestry, whereas the category "part-Hawaiian" includes all persons self-reported as partly of Hawaiian background. The term "mixed (not part-Hawaiian)" includes all persons who considered themselves to be of mixed ethnicity, no part of which was Hawaiian. "Other" is a residual category that includes all persons who indicated an ethnicity that did not fit into any of the other categories. It includes many ethnicities determined by national background, such as Indonesian or Malaysian.

DATA SOURCE: SOME LIMITATIONS

As noted, this paper relies mainly on data gathered in the 1 April 1975 OEO Census Update Survey of Oahu and focuses on the Filipinos on this island, where some 82 percent of the total population of the state lived in 1970. Developed out of the needs of federal, state, and county agencies, the OEO mid-decade sample survey was designed to collect basic demographic and socioeconomic data on all members of each sample household, plus some information about the dwelling unit.

In general, only summary tables are presented in the text. In most cases, however, each text table is based upon a more detailed table derived from the Office of Economic Opportunity (1976), that provides additional information on the variables being examined, the size of the sample, and an estimate of the population involved. (These detailed tables are available from me.) Other sources are identified in the references.

Some limitations of the study are due partly to the nature of the OEO survey. Because of past events, Filipinos on Oahu have an unusual age structure, a fact that should be kept in mind throughout the paper, as it may influence the other factors being examined. For example, the age structure can affect summary figures; median incomes for Filipinos might be biased downward because of the relatively large proportions of Filipinos in the older age groups, where incomes are traditionally low. At the same time, Filipinos of any given age may have higher incomes than other ethnic groups of the same age. I have tried to take such effects of age distribution into account whenever necessary. In some instances, however, it was not possible to control for this variable because of the limited size of the sample.

FILIPINOS AND OTHER ETHNIC GROUPS ON OAHU

The Filipino population on Oahu was estimated at 68,760 in 1975, equivalent to more than 10 percent of the island's total population of 676,365 (Table 1).[4] Among the major ethnic groups, Caucasians were the largest, making up over 27 percent, followed by Japanese (24.5 percent) and part-Hawaiians (14.4 percent). Groups smaller than the Filipino community include the "mixed (not part-Hawaiian)" (8.2 percent), Chinese (5.6 percent), Portuguese (2.6 percent),[5] Koreans

TABLE 1 Total population of Oahu by ethnicity

Ethnic group	Number	Percentage distribution
Black	9,237	1.4
Caucasian	188,416	27.8
Portuguese	17,621	2.6
Chinese	37,997	5.6
Filipino	68,760	10.2
Hawaiian	5,889	0.8
Part-Hawaiian	97,284	14.4
Japanese	166,328	24.5
Korean	9,838	1.5
Puerto Rican	3,789	0.6
Samoan	6,440	1.0
Mixed	55,447	8.2
Other	9,319	1.4
Total	676,365	100.0
Sample *n*	33,029	
Estimated study population	676,365	

SOURCE: Data in this and the following tables are based on tabulations derived from OEO (1976).

---

[4] Because no estimate of the Filipino population on Oahu was made in the 1970 Census, no direct comparison can be made here. For the entire state, however, the 1970 Census recorded the Filipino population at 94,354, or 12.4 percent of the total population. OEO 1975 data for other counties show Filipinos to account for 15.3 percent of the population of Maui and 9.5 percent of the population of Hawaii County.

[5] The Portuguese are of course also Caucasians. In Hawaii, however, they have been traditionally distinguished as a separate group, as they were in the OEO survey and so they are in this paper. In some instances they show clear differences from the other Caucasians.

(1.5 percent), Samoans (1.0 percent), and many other ethnic minorities. Interestingly, the original natives of the islands, the "pure" Hawaiians, constituted one of the smallest groups (0.8 percent), confirming the rapid depopulation of this group due to intermarriage.

Employment status

The data summarized in Figure 1 show that of persons 14 years of age and older, a higher proportion of Filipinos, compared with all Oahu residents, were in the labor force (59.2 percent and 55.9 percent, respectively).[6] The disparity is particularly great for females, with 54.5 percent of Filipino females, as opposed to only 49.8 percent of all females on Oahu, in the labor force. This finding perhaps reflects economic necessity and the greater independence of Filipino women vis-à-vis the home and the family.

Filipinos also compared favorably with other ethnic groups on Oahu in levels of employment within the labor force (Table 2). The unemployment rate among Filipinos (7.3 percent), along with that of Chinese (4.0 percent), Japanese (4.2 percent), Hawaiians (6.1 percent), and Portuguese (6.5 percent), was lower than that of all Oahu residents (7.9 percent). For other ethnic groups, levels of unemployment ranged from a low of 10.3 percent among Caucasians to a high of 26.4 percent among Samoans. In all cases, levels of unemployment were higher among females than among males. On the whole, Filipino males had a lower unemployment rate (4.8 percent) than all males on Oahu (6.6 percent); the reverse was true of Filipino females, who showed a higher rate of unemployment (10.5 percent) than all females on Oahu (9.7 percent).

Employment status, however, indicates only part of the situation. Adaptation and achievement in the host society can be gauged better by looking at the occupations and industries of workers and their levels of income.

Occupation

Data on the proportion of persons employed in the so-called white collar occupations (classified into professional, technical, and managerial categories on the one hand, and clerical and sales occupations on the other) are summarized in Table 3. High proportions of Oahu

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[6] The labor force is defined as anyone 14 years of age or older, employed or actively seeking work during the week prior to the survey.

FIGURE 1 Employment status of Filipinos and all Oahu residents 14 years and older, by sex

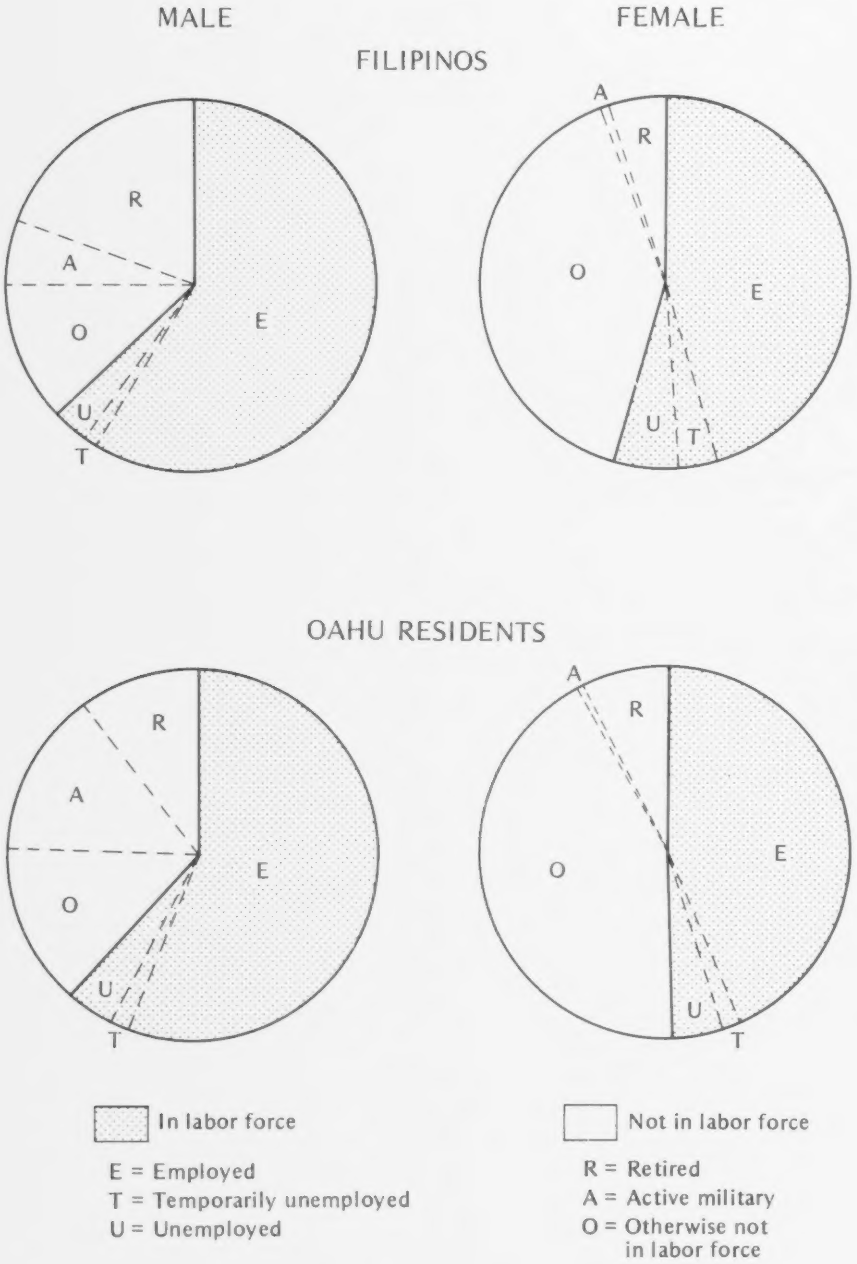


TABLE 2 Unemployed Oahu residents in the labor force, by ethnicity and sex (percent)

Ethnic group	Male	Female	Both sexes
Black	12.5	25.7	19.7
Caucasian	8.3	12.6	10.3
Portuguese	4.2	10.7	6.5
Chinese	3.4	4.7	4.0
Filipino	4.8	10.5	7.3
Hawaiian	1.3	13.5	6.1
Part-Hawaiian	11.3	14.4	12.5
Japanese	3.8	4.6	4.2
Korean	7.1	16.6	11.4
Puerto Rican	11.4	32.0	17.8
Samoan	21.1	34.2	26.4
Mixed	10.8	13.5	12.0
Other	11.5	18.7	14.4
Total	6.6	9.7	7.9

NOTE: These data refer only to the civilian labor force (14 years and over), which was classified into the categories of fully employed, temporarily employed, and unemployed. Other categories of employment status not included in the classification were active military, retired, and not in labor force.

residents were engaged in such occupations, males tending to be concentrated in the professional/technical/management jobs and females in the clerical and sales jobs.

Wide variations can be seen across ethnic groups. Filipinos had the lowest proportions of both males and females engaged in professional/technical/management occupations. Not surprisingly, the proportions in these occupations were highest among Caucasians (46.5 percent for both sexes), reflecting the traditional position of advantage that this group apparently continues to enjoy in Oahu's occupational hierarchy. Among males, Chinese and Koreans also had high proportions in the professional/technical/management occupations. For females, however, the distinctions were not so clear. As with Filipinos, low percentages in these occupations were found for Samoans, Blacks, Hawaiians, and Puerto Ricans. In the clerical and sales occupations, Filipinos of both sexes similarly ranked low, although not the lowest; Hawaiians showed a lower proportion than Filipinos.

To a large extent, occupational patterns are constrained by the

TABLE 3 Employed Oahu residents in professional/clerical occupations, by ethnicity and sex (percent)

	Male		Female		Both sexes	
Ethnic group	Professional/technical/management	Clerical/sales	Professional/technical/management	Clerical/sales	Professional/technical/management	Clerical/sales
Black	14.4	15.1	17.9	52.7	16.2	34.0
Caucasian	52.1	12.7	39.6	39.6	46.5	24.8
Portuguese	23.1	6.6	25.0	45.5	23.7	19.8
Chinese	45.8	18.5	23.5	46.9	35.8	31.2
Filipino	11.9	8.1	17.6	32.4	14.2	18.1
Hawaiian	16.7	4.2	18.8	26.5	17.5	12.3
Part-Hawaiian	19.5	9.7	24.3	42.8	21.4	22.6
Japanese	34.0	16.3	26.1	46.4	30.4	30.1
Korean	47.7	12.0	24.6	35.3	37.9	21.9
Puerto Rican	17.3	10.2	28.4	22.1	20.2	13.3
Samoan	12.2	7.4	18.9	37.6	14.7	18.7
Mixed	20.7	8.6	26.4	48.0	23.2	26.0
Other	28.2	8.8	26.7	37.9	27.6	20.1
Total	33.3	12.9	27.9	42.6	30.9	25.8

structure of the local economy, which, on Oahu, is characterized by a small manufacturing sector and still dominated by large government and service sectors. As summarized in Table 4, more than 40 percent of all Oahu residents were employed in these two sectors, in part because of the presence of a large military establishment and in part because of the tremendous growth of tourism in recent years.

On the whole, the evidence indicates that the low rate of unemployment among Filipinos largely reflects the fact that they work in more readily available and less prestigious occupations. At the other extreme, the higher levels of unemployment among Caucasians may be traced to the relative scarcity of jobs that are commensurate with their backgrounds and apparently higher qualifications. At any rate, one expected consequence of occupational variation is the existence of corresponding differentials in income levels.

TABLE 4 Employed Oahu residents in the service and government sectors, by ethnicity and sex (percent)

Ethnic group	Male	Female	Both sexes
Black	47.0	61.7	54.3
Caucasian	45.7	51.2	48.3
Portuguese	44.0	50.5	46.3
Chinese	38.9	45.9	42.1
Filipino	34.5	46.2	39.4
Hawaiian	32.6	60.3	42.6
Part-Hawaiian	35.0	48.2	40.1
Japanese	36.9	48.4	42.2
Korean	46.1	34.8	41.3
Puerto Rican	44.2	68.9	50.6
Samoan	34.9	70.8	48.1
Mixed	37.6	42.3	39.6
Other	50.6	53.1	51.6
Total	39.1	48.6	43.2

Income

Consistent with the information on occupational status, the data presented in Table 5 show that the median income of employed Filipinos ($6,554) was one of the lowest–much lower than the median income of all Oahu residents ($8,396) and higher only than the median incomes of Samoans ($5,756) and Blacks ($5,554). On the other hand, Hawaiians ($8,455), Chinese ($9,351), Japanese ($9,234), Caucasians ($8,708), and Portuguese ($9,179) all recorded a higher median income than that of all Oahu residents.

To test whether these results are merely the product of the Filipino population being concentrated in the older, less-productive age-groups, I calculated income by age for Filipinos and compared this with figures for Caucasians and Japanese, the two largest ethnic groups (data not shown). For every age group above 25, Filipino income was lowest by far. Thus, even with age controlled, Filipino incomes are low.

On balance, the statistical evidence documents the generally lower socioeconomic status of Filipinos compared with most other ethnic groups on Oahu, and reflects their lower level of success in adapting to the larger society. Many factors may have contributed to this situation, and some of them will now be considered (also see Lind, 1967).

TABLE 5 Median income of employed Oahu residents, by ethnicity and sex

Ethnicity	Male ($)	Female ($)	Both sexes ($)	Sample (*n*)	Estimated total (*n*)
Black	6,986	4,446	5,554	63	1,353
Caucasian	13,619	5,512	8,708	2,703	49,770
Portuguese	10,986	4,987	9,179	359	6,512
Chinese	12,766	5,859	9,351	854	15,306
Filipino	9,053	4,660	6,554	1,422	24,829
Hawaiian	11,687	3,831	8,455	125	2,312
Part-Hawaiian	10,504	5,094	8,000	1,515	25,517
Japanese	12,124	6,556	9,234	4,162	74,692
Korean	11,974	6,387	8,389	177	2,825
Puerto Rican	10,205	1,814	8,080	58	908
Samoan	8,167	5,029	5,756	79	1,215
Mixed	9,795	5,202	6,880	575	9,919
Other	11,000	5,840	7,520	104	1,913
Total	11,545	5,683	8,396	12,196	217,071

Factors affecting Filipino status

Late arrival. One factor may be the late arrival of Filipinos as a group on the island. Length of residence has been shown to be closely related to variables that significantly influence migrant adaptation (Goldlust and Richmond, 1974). Of the major immigrant groups, the Filipinos were the last to arrive on the island. Those who came ahead of them, principally the Chinese and the Japanese, likely found opportunities more quickly and easily, and apparently had a better chance to get into preferred positions and to accumulate wealth and property. As will be shown later, this factor also appears to be important in explaining variations within the Filipino community itself.

Urbanization. Related to the late arrival of Filipinos is the slower pace of urbanization within their community. For instance, unlike the Chinese, who passed through the plantation stage fairly quickly because of their superior experience in a trading economy, the Filipinos were handicapped in being the last major group to arrive in Hawaii, and that handicap continues to manifest itself in their somewhat slower transition from rural (plantation) to urban residence. For example, Lind (1967:50–51) pointed out that as late as 1950 only 28.5

percent of the Filipinos in Hawaii had settled in Honolulu. A decade later, the proportion of Filipinos living in the capital city had risen to only 31.8 percent. In contrast, as early as 1930, 71.2 percent of the Chinese were already resident in Honolulu, and the very sharp urban trend of the Chinese population continued through 1950, when 82.5 percent resided in the capital city.

As shown in Table 6, only 45.8 percent of the Filipinos on Oahu were living in Honolulu in 1975, as opposed to 83.6 percent of the Chinese, 71.9 percent of the Koreans, and 63.4 percent of the Japanese. Apart from their late arrival, the slow pace at which Filipinos have moved from rural areas to Honolulu can be partly attributed to their lesser experience in a trading economy. The low percentage of Caucasians living in Honolulu in 1975 may be a reflection of a preference for suburban residence, as well as of the military population living outside the central city.

Large immigrant population. A third factor that may have contributed to the adaptation problems of Filipinos is the large proportion of immigrants within their community. Migration entails, on the one hand, the loss of social and geographic familiarity and of long-term relationships and supports in the area of origin and, on the other, the

TABLE 6 Proportions of ethnic groups on Oahu residing in Honolulu in 1975

Ethnic group	Percentage residing in Honolulu	Sample (*n*)	Estimated total (*n*)
Black	26.4	404	9,278
Caucasian	43.2	9,081	188,873
Portuguese	46.1	852	17,621
Chinese	83.6	1,777	38,117
Filipino	45.8	3,690	69,117
Hawaiian	47.9	301	5,889
Part-Hawaiian	38.3	5,045	97,335
Japanese	63.4	7,753	166,481
Korean	71.9	445	9,839
Puerto Rican	31.4	187	3,790
Samoan	49.2	337	6,440
Mixed	44.4	2,808	55,467
Other	51.9	400	9,347
Total	50.5	33,080	677,594

NOTE: "Honolulu" includes "Kalihi-Palama."

prospect of encountering resistance at the destination. The fact that a high percentage of Filipinos on Oahu have been born and nurtured outside Hawaiian and American society limits their efforts to participate in the social and economic life of the community. Nearly 55 percent of all Filipinos on Oahu in 1975 were foreign-born, easily the largest proportion among the different ethnic groups (Table 7). The next largest proportion occurred among Koreans, whose immigrants accounted for 47.9 percent of the total, followed by "other" (40.5 percent), Chinese (19.7 percent), Samoans (14.6 percent), and Japanese (9.9 percent).

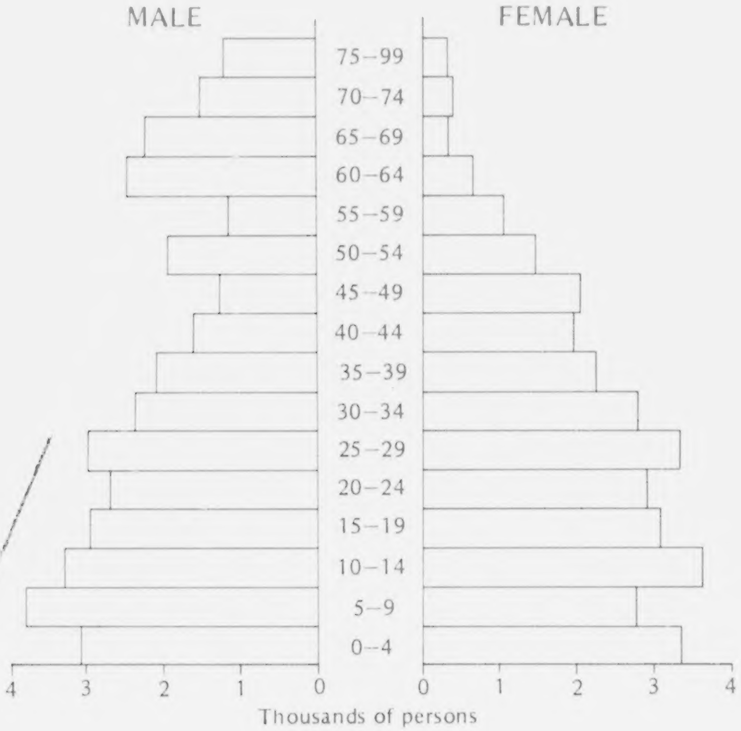
TABLE 7 Foreign-born population of Oahu by ethnicity

		Foreign-born population		
Ethnic group	Estimated total population	Number	Percentage of ethnic group	Percentage of all foreign-born
Black	9,237	144	1.6	0.2
Caucasian	188,416	11,701	6.2	13.2
Portuguese	17,621	269	1.5	0.3
Chinese	37,997	7,480	19.7	8.4
Filipino	68,760	37,262	54.2	42.0
Hawaiian	5,889	0	0.0	0.0
Part-Hawaiian	97,284	982	1.0	1.1
Japanese	166,328	16,461	9.9	18.6
Korean	9,838	4,712	47.9	5.3
Puerto Rican	3,789	216	5.7	0.2
Samoan	6,440	938	14.6	1.1
Mixed	55,447	4,834	8.7	5.4
Other	9,319	3,770	40.5	4.2
Total	676,365	88,769	13.1	100.0
Sample *n*	33,029	4,250		

Imbalance in the age-sex structure. Another factor that has apparently complicated the adaptation of the Filipino community to life on Oahu is its abnormal age-sex structure. Again, unlike the other major immigrant groups whose abnormalities of population structure have largely disappeared in recent decades, Filipinos still had disproportionate numbers of males and females at both older and younger ages in 1975 (Figures 2 and 3).

In contrast to the fairly normal age-sex distribution of all Oahu

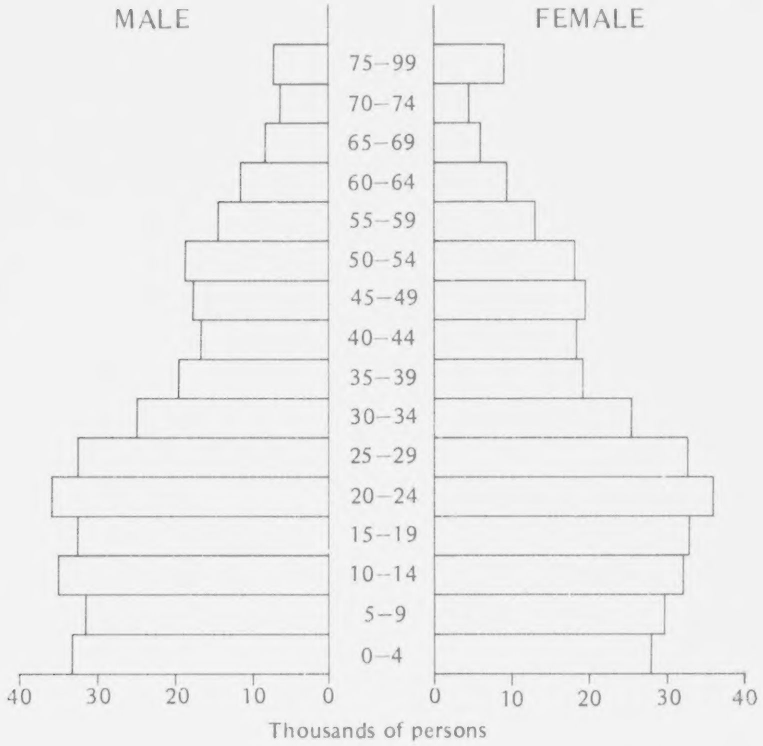
FIGURE 2 Age-sex structure of Filipinos on Oahu



residents, an irregular pattern among Filipinos is characterized by a heavy predominance of men in the age groups above 60. More than 20 percent of all males were aged 60 and above at the time of the survey, as against only 5.6 percent of all females. Hence, an exceptionally high sex ratio of 4.01 : 1 can be observed in this age bracket, which means that there were more than four males for every female. This demographic anomaly may be traced historically to the predominance of single male immigrants after the turn of the twentieth century, when they were brought in mainly as sugar plantation workers.

The opposite can be observed in young adult and middle-aged groups. From the age range 15–19 upwards, the sex ratio dramatically drops until it reaches a low of 0.62 in the 45–49 age group. These low sex ratios may be explained by the combined effects of the growing number of young adult female migrants in recent years, by the out-migration of young adult and middle-aged males (most probably to the United States mainland for education and employment), and by

FIGURE 3 Age-sex structure of Oahu residents



the entry of young males into the armed forces (see Gardner and Nordyke, 1974:14).

Nonetheless, the disproportions are fast disappearing, as evidenced by the decreasing discrepancy in median age between males and females. As can be seen in Table 8, Filipino males were only slightly older (median age of 29.1 years) than their female counterparts (25.8 years) in 1975. Just 15 years earlier, in 1960, the median age of all Filipino males in Hawaii was 38.6 years, compared with 16.8 years for all Filipino females, a discrepancy without parallel in the islands (Lind, 1967:36).

Table 8 also shows that Filipinos as a group were older than part-Hawaiians, Samoans, and the mixed group, but somewhat younger than Chinese, Japanese, Portuguese, and Koreans. At any rate, the age-sex structure of the Filipino community, which was extremely uneven in the early part of the century, has led to a high rate of male celibacy, a delay in the growth of the local-born population, and a consequent

TABLE 8 Median age of Oahu residents by ethnicity and sex

Ethnic group	Male	Female	Both sexes	Sample (*n*)	Estimated total (*n*)
Black	23.8	21.2	22.6	404	9,278
Caucasian	26.7	26.1	26.4	9,080	188,850
Portuguese	37.9	33.7	35.8	852	17,622
Chinese	38.2	36.8	37.4	1,777	38,117
Filipino	29.1	25.8	27.3	3,690	69,117
Hawaiian	31.8	38.2	34.1	301	5,889
Part-Hawaiian	17.2	18.8	18.0	5,044	97,327
Japanese	33.0	36.3	34.6	7,752	166,481
Korean	33.0	33.8	33.5	445	9,839
Puerto Rican	26.1	26.7	26.3	187	3,790
Samoan	16.1	21.1	18.0	337	6,440
Mixed	12.4	14.0	13.1	2,808	55,467
Other	24.9	25.1	25.0	400	9,347
Total	25.7	26.3	26.0	33,077	677,564

lack of normal family associations and assistance in adjustment and adaptation (see also Smith, 1976:324). That this abnormal age-sex structure has contributed to the problems of assimilation was suggested by Adams (1933:26): "Since the native-born children make a greater response to the influences that count toward assimilation, and since the children, when they reach adult age, serve as intermediaries between their ancestral group and all others, it may be seen that a normal age distribution is favorable to assimilation."

Low levels of education. Still another factor that has slowed down the socioeconomic advance of Filipinos on Oahu is their generally lower levels of educational attainment. It can be attributed in part to economic need; that is, given lower income levels among parents, children are encouraged to take employment as early as possible in order to assist supporting the family.

The importance of formal education as a requisite for social and economic achievement cannot be overemphasized, given the high premium placed upon it by the host society, especially for those aspiring to move into preferred occupations. The Puerto Ricans had the lowest levels of schooling among all ethnic groups on Oahu in 1975, Hawaiians and Filipinos also averaging less than a high school education (Table 9). Among persons 25 years or older, the median period of

TABLE 9 Median highest grade attained by Oahu residents 25 years old and over, by ethnicity and sex

Ethnic group	Male	Female	Both sexes	Sample (*n*)	Estimated total (*n*)
Black	12.0	12.0	12.0	158	3,694
Caucasian	12+	12+	12+	4,781	100,785
Portuguese	12.0	12.0	12.0	559	11,324
Chinese	12.0	12.0	12.0	1,139	23,610
Filipino	10.7	12.0	11.9	1,927	34,791
Hawaiian	11.6	11.7	11.6	206	3,976
Part-Hawaiian	12.0	12.0	12.0	1,737	33,518
Japanese	12.0	12.0	12.0	4,832	103,329
Korean	12+	12.0	12.0	291	6,363
Puerto Rican	11.0	9.7	10.3	99	1,842
Samoan	12.0	11.0	12.0	122	2,287
Mixed	12.0	12.0	12.0	567	11,006
Other	12.0	12.0	12.0	200	4,603
Total	12.0	12.0	12.0	16,618	341,128

NOTE: Because of the intervals used in the OEO survey, more precise figures would be misleading. "12+" indicates "some college," but the distribution within this category was not known or assumed. "12.0" indicates that the 50th percentile fell in this category. The interval 9–11 was assumed to include all people who had finished at least the 9th grade but who had not graduated from high school; the distribution within this three-year group was assumed to be even.

schooling ranged from more than 12 years among Caucasians to a low of 10.3 years among the Puerto Ricans.[7] The somewhat higher educational levels of Filipino females than of males may be attributed to the predominance of less-educated male laborers among early migrants, whose survivors are still found in the older age groups.

Pattern of social stratification. Patterns of stratification and inequality may cross ethnic lines of participation in the occupational life of the host community. Such a problem is likely to occur when peoples of sharply contrasted ethnic and racial origins live in one geographic area. In Hawaii, the first clearly defined pattern of stratification by race was introduced on the plantations. Evidence indicates that prior to World War II, when the production of sugar and pineapple dominated Hawaii's economy, a distinct social barrier separated the large mass of nonwhite plantation laborers from the proprietary whites (Lind, 1967:9; see also Jocano, 1970). Although a trend toward equalization has become apparent with each passing decade, "obvious inequalities, based in part upon the [date of] arrival, the length of residence in Hawaii, and the cultural tradition which each group has perpetuated, still exist and will continue for some time in the future" (Lind, 1967:83).

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[7] A median of 12-plus years corresponds to "some college" in the OEO survey, a category between "grade 12" and "bachelor's degree" (OEO, 1976).

The data on income and occupation examined in this paper support the contention that there is a differential distribution of wealth and that specific groups are concentrated in certain types of occupations. Caucasians, for example, tend to occupy middle- and upper-class positions, while Filipinos are found more often in blue collar occupations. For Filipinos in particular, the resistance they encounter in seeking to participate in the social and economic life of the community may be partly traced to the unfavorable stereotype created by the plantation laborers (see Jocano, 1970).

On balance, the statistical information reviewed highlights the sharp variations between ethnic groups on Oahu. It also documents the generally lower socioeconomic status of Filipinos, a phenomenon that is tied to the historical factors discussed above and to the Filipino community's lower level of adaptation. This is not to suggest that the Filipino community is homogeneous. On the contrary, it is becoming increasingly diverse—both socially and economically. This increasing differentiation must be fully understood if efforts to deal with the adaptation problems of Filipinos are to be successful.

DIVERSITIES WITHIN THE FILIPINO COMMUNITY

With a view toward providing greater insight into the socioeconomic changes that have been taking place, I shall now examine the important diversities that exist within the Filipino community on Oahu, delineating Filipino subgroups according to the apparent major sources of differentials in levels of adaptation: place of birth and recency of migration. Differences between places of residence will also be examined.

Residential patterns

A cursory examination of the geographic distribution of Filipinos on Oahu reveals obvious concentrations of them in areas with varying rural and urban characteristics. Table 10 and Figure 4 summarize information on the place of residence of Filipinos on Oahu according to the 25 original districts delineated for the OEO survey.[8]

The data show Filipino concentration in four districts on Oahu—the adjacent areas of Kalihi-Kapalama and Upper Kalihi within central Honolulu, and the two adjacent districts of Waipahu and Ewa-Makakilo outside the city. Almost half (47.5 percent) of all Filipinos on Oahu lived in these four districts in 1975. Of the remaining 52.5 percent, some 17 percent were found in districts within Honolulu and the rest were scattered in other parts of the island.

It is even more striking that more than one-third (35.4 percent) of all Kalihi-Kapalama residents and almost 30 percent (29.7 percent) of all Upper Kalihi residents in 1975 were Filipinos. The proportions of Filipinos in the total populations of Waipahu and Ewa-Makakilo were also high: 25.4 and 23.6 percent respectively. In general, such a concentration of the Filipino community in a few districts suggests the persistence of ethnic and kinship networks among Filipinos, as well as the phenomenon of chain migration. Moreover, the concentration is increasing; the proportion of all Filipinos on Oahu in these four districts was only 44 percent in 1970 (Chai and Tong, 1974).

There are some important contrasts among the areas where Filipinos reside. Although Waipahu and Ewa-Makakilo contain part agricultural and part residential districts in addition to business districts, they are less rural and agricultural than other areas of Oahu outside Honolulu. The City of Honolulu is of course the most highly urban section of Oahu, and within it are the districts of Kalihi-Kapalama and Upper Kalihi, which represent the poorer sections of the residential and business areas. Thus, it seems appropriate to compare Filipinos living in four major areal subdivisions that roughly represent a rural-urban continuum. For this comparison Kalihi-Kapalama and Upper Kalihi are merged to constitute the first subdivision (hereinafter referred to as Kalihi-Palama); the rest of Honolulu (Other Honolulu) is the second subdivision; Waipahu and Ewa-Makakilo (Waipahu-Ewa) are combined to form the third; and the rest of Oahu (Other Oahu) is the fourth. The pattern that emerged from the data shows some form of spatial class segregation to have taken place. In general, the areas of concentration also contain the poorer segments of the Filipino community.

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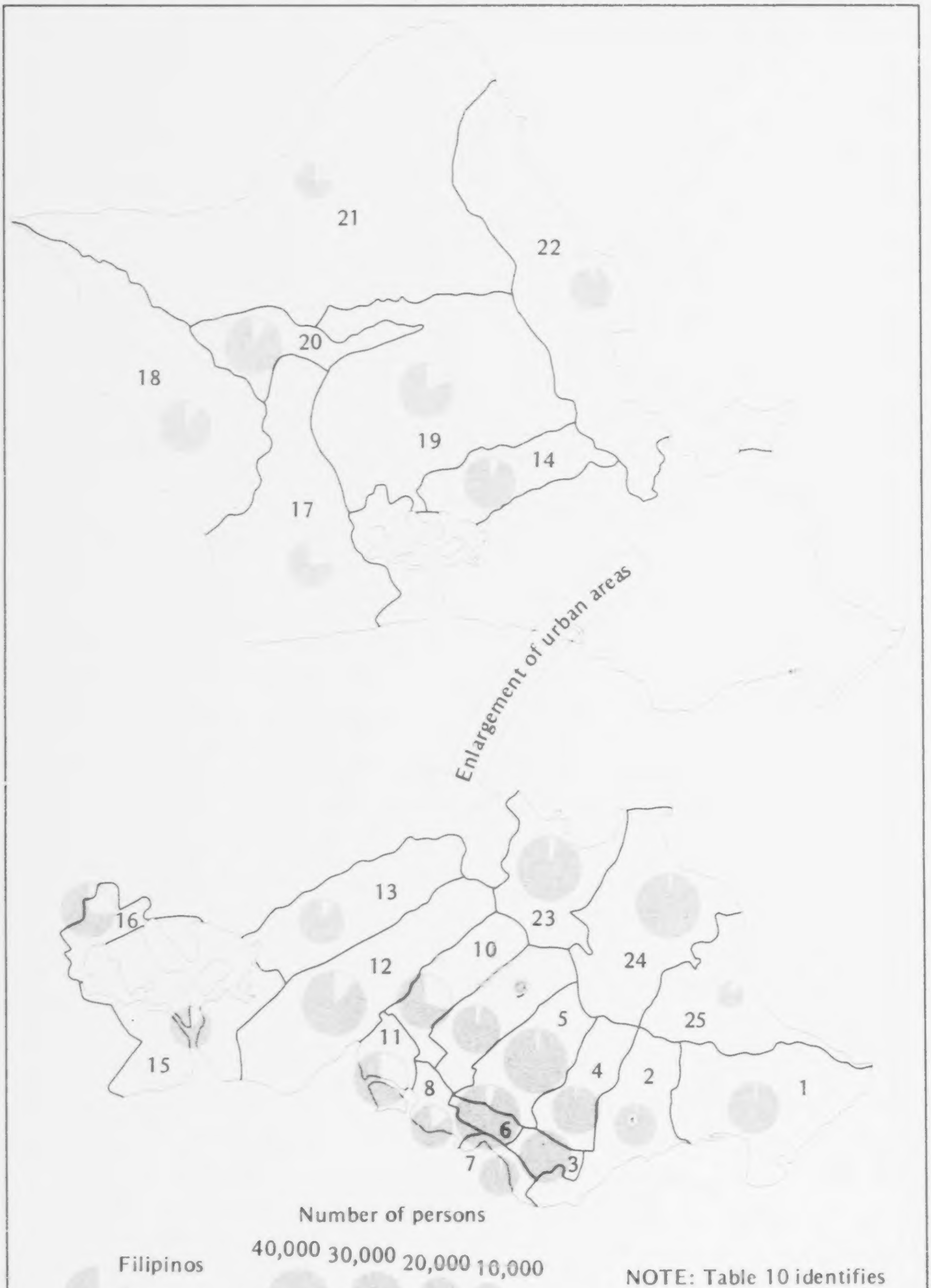
[8] The OEO districts as shown in Figure 4 were created for sampling purposes by combining census tracts, and are different from the administrative and political districts of Oahu.

TABLE 10 Filipinos on Oahu, by district of residence

		Filipinos		
Number of Filipinos in OEO districts, by district name (and OEO number)	Estimated 1975 population	Estimated number	Proportion to district population	Percentage distribution
>10,000				
Kalihi-Kapalama (11)	29,497	10,616	35.4	15.7
6,000–9,999				
Upper Kalihi (10)	30,180	8,974	29.7	13.3
Waipahu (16)	30,022	7,623	25.4	11.3
3,000–5,999				
Mililani-Waipio (19)	32,005	5,697	17.8	8.4
Ewa-Makakilo (17)	20,578	4,866	23.6	7.2
Moanalua-Salt Lake (12)	40,741	4,242	10.4	6.3
Waianae Coast (18)	26,926	3,114	11.6	4.6
North Shore-Waialua (21)	13,675	3,041	22.2	4.5
1,000–2,999				
Wahiawa-Schofield (20)	32,935	2,688	8.2	4.0
Downtown-Kakaako (08)	17,729	2,634	14.9	3.9
Aiea-Halawa (13)	23,000	2,138	9.3	3.2
Moiliili-Makiki (06)	38,793	1,985	5.1	2.9
Pearl Harbor (15)	20,425	1,915	9.4	2.8
Pearl City (14)	28,418	1,632	5.7	2.4
Kaneohe (23)	41,620	1,627	3.9	2.4
500–999				
Waimanalo (25)	8,435	966	11.5	1.4
Nuuanu-Punchbowl (09)	26,174	783	3.0	1.2
Upper Windward (22)	17,205	592	3.4	0.9
Manoa-Makiki (05)	40,453	577	1.4	0.9
<500				
Kailua (24)	40,722	450	1.1	0.7
Kaimuki-Kapahulu (03)	27,775	418	1.5	0.6
Waikiki (07)	17,096	292	1.7	0.4
Wilhelmina-Palolo (04)	29,459	267	1.1	0.4
Aina Haina (01)	26,191	201	0.1	0.3
Waialae-Kahala (02)	18,795	162	0.1	0.2
Total	678,979	67,500	10.4	100.0
Sample *n*	33,142	3,690		

FIGURE 4 Distribution of Filipinos on Oahu, by district of residence


21
22
20
18
19
14
17
Enlargement of urban areas
13
16
23
10
12
24
9
11
5
25
15
4
2
8
1
6
7
3
Number of persons
Filipinos
All others
40,000
30,000
20,000
10,000

NOTE: Table 10 identifies districts indicated here by number.

TABLE 11 Place of birth of Filipinos on Oahu, by place of residence (percent)

	Place of residence				
Place of birth	Kalihi-Palama	Waipahu-Ewa	Other Honolulu	Other Oahu	Total
Oahu	29.8	40.4	25.9	43.6	36.0
Other country	65.8	53.6	59.2	42.9	54.3
Other U.S.	4.4	6.0	15.0	13.5	9.8
Total	100.0	100.0	100.0	100.0	100.0
Sample *n*	951	837	405	1,478	3,671
Estimated total *n*	19,679	12,498	11,820	24,776	68,764

Aside from differences in urban-rural characteristics, important contrasts were found among the geographic subdivisions in the relative proportion of the immigrant population. Table 11 indicates that 65.8 percent of Kalihi-Palama's Filipino population was foreign-born, compared with only 42.9 percent for the rest of Oahu. The proportions of immigrant Filipinos in Waipahu-Ewa and Other Honolulu were intermediate, making up more than half of the total Filipino population in these areas. On the other hand, Other Oahu and Other Honolulu housed higher proportions of Filipinos born in other parts of the United States.

Finally, Filipinos in the four areas showed some differences in age patterns. The median age for Kalihi-Palama was 26.8; for Waipahu-Ewa, 25.4; for Other Honolulu, 29.3; and for Other Oahu, 27.1. Other variations among Filipino residential communities will be noted as differentials among various Filipino subgroups are examined.

Sociodemographic variations among Filipino subgroups

As previously indicated, Filipinos on Oahu were classified according to whether they were born on Oahu (nonmigrants) or in another country (foreign-born migrants). In addition, an "All Migrants" category has been included in the analysis to encompass both foreign-born migrants and those born outside Oahu but within Hawaii or other parts of the United States.[9] Because the immigrant tends to be less successful in adapting to the new environment—aside from expected variations in age-sex structure—the three groups were likely to be differentiated in their socioeconomic attributes, with the foreign-born Filipinos generally occupying the lower levels of the receiving society's social and economic strata.

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[9] It is not meaningful to treat those born outside Oahu but within the United States as a separate category because of the smallness of the sample.

Among foreign-born Filipinos on Oahu, important socioeconomic differences seem to be related to time of arrival. By looking at the characteristics of the foreign-born population, my aim was to delineate the differences that existed between the early migrants and those who had moved in more recent years. Filipinos who immigrated at three periods were compared and contrasted: (1) those who came before World War II, or immigrants who have been in Hawaii more than 30 years; (2) those who migrated after the war but before the 1965 amendments to the immigration law became fully effective; and (3) those who arrived after the full implementation of the amendments in 1968. These comparisons were intended to test the thesis that length of residence in Hawaii affects the success and adaptation of migrants in the host community.

Employment status. Comparative data on the employment status of foreign-born and nonmigrant Filipinos, graphically presented in Figure 5, indicate that, of those over 14, a higher proportion of nonmigrants (61.8 percent), as compared with foreign-born Filipinos (56.9 percent), was in the labor force. It is also noteworthy that the discrepancy was wider among males. As will be shown, the discrepancy can easily be traced to an older age distribution among foreign-born males and the consequent high proportion of retired persons. Paradoxically, the unemployment level among nonmigrants (10.5 percent) was much higher than among either the foreign-born (6.5 percent) or all migrants (6.3 percent). Data on unemployment levels are summarized in Table 12. The data document the pattern of class segregation across residential areas referred to earlier. The areas of concentration, Kalihi-Palama and Waipahu-Ewa, had much lower unemployment rates than either Other Honolulu or Other Oahu.

The evidence gathered shows that socioeconomic differentials also exist among foreign-born Filipinos. The data presented in Table 13 suggest, first, that employment status is largely a function of length of residence in Hawaii. Unemployment levels were highest for the most recent migrants (9.6 percent). They were much lower for migrants who had stayed in Hawaii 8 to 29 years (3.2 percent), and negligible

FIGURE 5 Employment status of Oahu-born and foreign-born Filipinos, by migration status and by sex: 1975

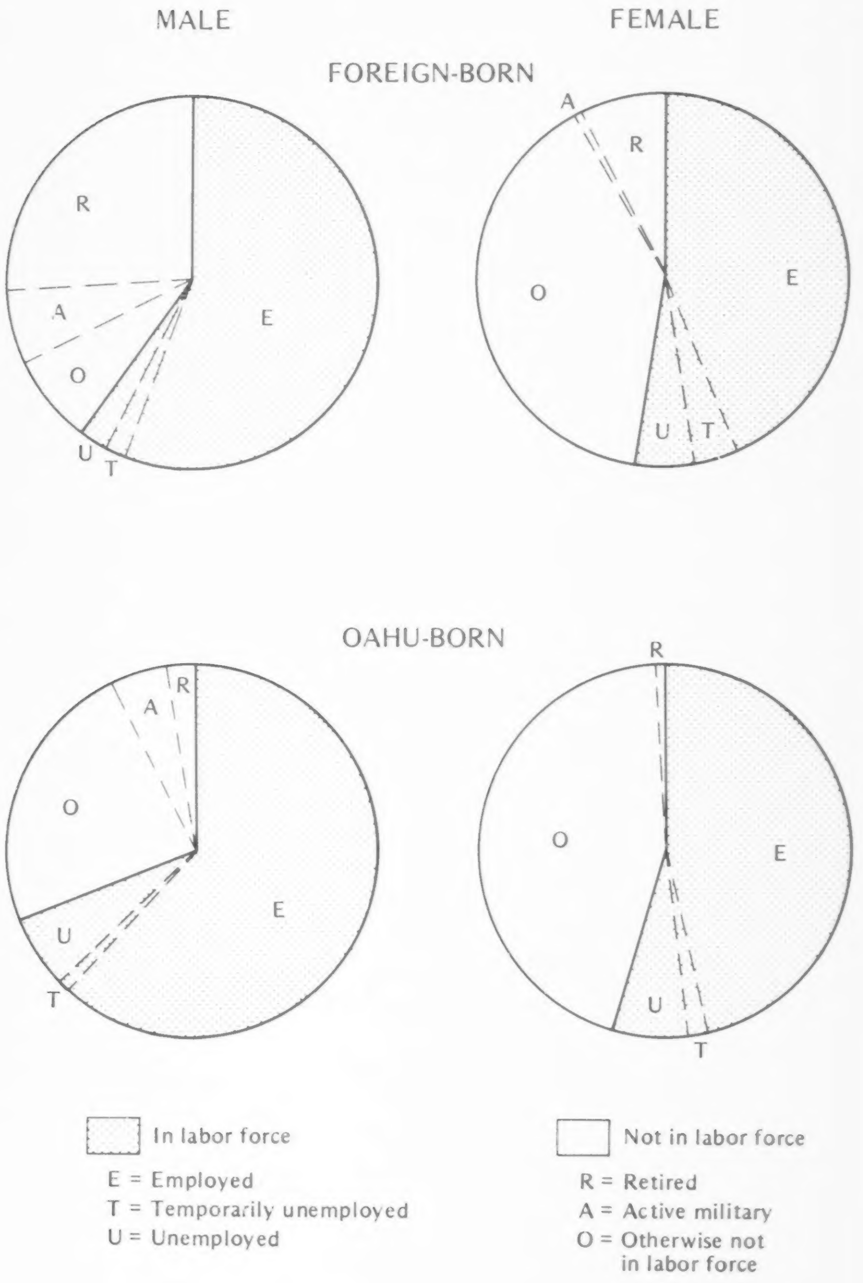


TABLE 12 Unemployed Filipinos in the labor force, by migration status, place of residence, and sex (percent)

Migration status by sex	Place of residence Kalihi-Palama	Waipahu-Ewa	Other Honolulu	Other Oahu	Total
Male					
Nonmigrants	0.0	3.6	16.9	9.7	9.0
Foreign-born	4.3	2.8	6.7	2.6	4.1
All migrants	3.9	3.3	5.5	2.0	3.6
Total	3.5	3.4	8.4	4.3	4.8
Female					
Nonmigrants	13.7	2.6	14.0	14.7	12.3
Foreign-born	5.7	5.8	23.7	10.4	10.1
All migrants	5.3	5.1	21.8	10.3	10.0
Total	6.5	4.2	19.5	11.7	10.5
Both sexes					
Nonmigrants	7.4	3.2	15.6	12.0	10.5
Foreign-born	4.9	3.9	12.7	6.0	6.5
All migrants	4.5	3.9	11.8	5.6	6.3
Total	4.8	3.7	12.8	7.4	7.3

for the very first immigrants (0.9 percent). Such a pattern undoubtedly reflects the adjustment problems encountered by immigrants during their first years of residence on the island, especially in their search for suitable employment. It also suggests that many Filipino immigrants have moved to Hawaii without prearranged employment.

TABLE 13 Unemployed foreign-born Filipinos in the labor force, by years in Hawaii and sex (percent)

Years in Hawaii	Male	Female	Both sexes
0–7	6.8	13.0	9.6
8–29	1.2	5.7	3.2
30 and over	1.1	0.0	0.9
Total	4.1	10.0	6.5

Occupational status. Employment status, however, seems to depend largely on economic need. Compared with the local-born Filipinos, the immigrant population, and the foreign-born in particular, have accepted lower status, lower-paying, blue-collar jobs as documented in Table 14. Although 20.5 percent of all nonmigrants were in professional/technical/management occupations, the figure was only 11.3 percent for foreign-born Filipinos, and 12.2 percent for all Filipino migrants. A similar trend can be observed with respect to clerical/sales occupations. While 26.0 percent of all nonmigrants were found in these occupations, the proportions of foreign-born Filipinos (13.2 percent) and all Filipino migrants (15.7 percent) were much smaller. The pattern across residential areas also reappears: Filipinos in the areas of concentration (Kalihi-Palama and Waipahu-Ewa) had lower occupational status than those living in other parts of Honolulu and Oahu.

Within the foreign-born group, the old-timers, as may be expected from their essentially rural and nonprofessional background, had lower occupational status than the more recent arrivals. As shown in Table 15, only 8.3 percent of the prewar immigrants were in professional/technical/management positions, compared with 13.8 percent of immigrants present eight to 29 years, and 10.7 percent of the most recent arrivals. The same pattern generally holds for clerical and sales positions.

As shown in Table 16, larger proportions of migrants than of nonmigrants were employed in agriculture, and such proportions were especially high for foreign-born Filipinos, a further manifestation of their essentially rural backgrounds. Across residential areas, the predominantly agricultural base of Waipahu-Ewa and Other Oahu is reflected in the high proportions employed in the agricultural sector.

Among foreign-born Filipinos, the essentially rural and agricultural experience of the old-timers is further substantiated by the data presented in Table 17. Of immigrants who had been in Hawaii more than 30 years, 12.9 percent were employed in the agricultural sector, as opposed to only 7.7 percent of the most recent migrants and 8.0 percent of migrants present eight to 29 years. Particularly noteworthy is the even greater contrast between the old-timers and more recent migrants in the proportion of immigrant females employed in agriculture. As Table 15 indicates, the rise in the proportion of professionals was even more rapid among females than among males, although a slight

TABLE 14 Employed Filipinos on Oahu in professional/clerical occupations, by migration status, place of residence, and sex (percent)

	Kalihi-Palama		Waipahu-Ewa		Other Honolulu		Other Oahu		Total	
Migration status by sex	P/T/M[a]	C/S[b]	P/T/M	C/S	P/T/M	C/S	P/T/M	C/S	P/T/M	C/S
Male										
Nonmigrants	8.4	12.4	15.3	8.7	31.7	8.0	13.6	9.3	17.2	9.3
Foreign-born	4.6	6.2	8.0	1.0	18.5	8.8	10.0	8.4	9.4	6.6
All migrants	4.7	6.6	8.7	0.9	20.5	8.5	10.0	12.0	10.2	7.9
Total	5.6	7.2	10.8	3.4	23.0	8.3	11.0	11.1	11.9	8.1
Female										
Nonmigrants	19.8	45.0	20.2	55.3	29.3	46.8	26.1	43.5	24.6	46.7
Foreign-born	11.4	17.5	9.7	14.1	22.5	42.9	16.1	26.7	14.1	23.2
All migrants	12.8	18.4	8.4	18.6	22.9	48.2	16.6	31.1	15.1	27.4
Total	13.6	22.3	13.1	31.2	25.0	47.7	19.5	34.9	17.6	32.4
Both sexes										
Nonmigrants	14.1	28.7	17.3	28.1	30.6	25.4	19.1	24.2	20.5	26.0
Foreign-born	7.6	11.1	8.6	5.8	19.7	19.1	12.5	16.0	11.3	13.2
All migrants	8.2	11.7	8.6	7.5	21.3	21.9	6.5	19.9	12.2	15.7
Total	9.1	13.9	11.7	14.2	23.7	22.8	14.5	21.1	14.2	18.1

[a] Professional/technical/management.

[b] Clerical/sales.

TABLE 15 Employed foreign-born Filipinos in professional/clerical occupations, by years in Hawaii and sex (percent)

Years in Hawaii	Male	Female	Both sexes
Professional/technical/management			
0–7	8.5	13.6	10.7
8–29	11.1	17.4	13.8
30 and over	9.5	2.7	8.3
Total	9.4	14.1	11.3
Clerical/sales			
0–7	7.2	25.0	15.0
8–29	7.1	21.0	13.1
30 and over	4.2	17.0	6.6
Total	6.6	23.2	13.2

TABLE 16 Filipinos on Oahu employed in agriculture, by migration status, place of residence, and sex (percent)

	Place of residence				
Migration status by sex	Kalihi-Palama	Waipahu-Ewa	Other Honolulu	Other Oahu	Total
Male					
Nonmigrants	0.0	10.1	0.0	3.7	3.8
Foreign-born	3.1	25.1	5.4	17.8	10.9
All migrants	2.8	22.4	4.4	14.1	9.4
Total	2.5	18.5	3.3	11.0	8.1
Female					
Nonmigrants	4.7	2.0	0.0	3.4	2.6
Foreign-born	1.2	11.4	3.9	7.9	4.9
All migrants	1.1	9.9	2.7	6.8	4.3
Total	1.6	7.0	1.8	5.7	3.8
Both sexes					
Nonmigrants	2.4	6.7	0.0	3.6	3.2
Foreign-born	2.3	20.1	5.0	13.7	8.5
All migrants	2.1	17.7	3.8	11.1	7.4
Total	2.1	14.0	2.8	8.8	6.3

TABLE 17 Foreign-born Filipinos employed in agriculture, by years in Hawaii and sex (percent)

Years in Hawaii	Male	Female	Both sexes
0–7	10.3	4.3	7.7
8–29	11.2	3.7	8.0
30 and over	12.2	15.8	12.9
Total	10.9	4.9	8.5

decline in the proportion can be observed among the latest migrants. The decline can probably be attributed to the increasing number of Filipinos who immigrate on the basis of kinship, rather than professional qualifications. On the whole, these trends reflect, on one hand, the growing importance in Hawaii of the other sectors of the economy (especially tourism and service industries) and, on the other, the declining importance of the agricultural sector.

Income. Similar differentials among the same groups can be observed in personal income. In 1975 the median annual income of nonmigrants of both sexes was higher than that of foreign-born migrants (Table 18). Of all residential areas, Kalihi-Palama had the lowest median income. The surprisingly high median income in Waipahu-Ewa may be due to the relatively high proportion of residents who, despite relatively low occupational status, had lived in the area for a longer period and were therefore more settled than residents of other areas.

Table 19 substantiates this hypothesis. Whereas 47.0 percent of the residents of Waipahu-Ewa had stayed in the same house for at least the past five years, the proportions were much lower in the other areas, ranging from 40.3 percent in Kalihi-Palama and 30.0 percent in Other Honolulu to a low of 12.7 percent in Other Oahu.

Interestingly, within the foreign-born group, the data reveal that occupational status is not necessarily a principal determinant of income and suggest that length of residence may be more important (Table 20). Despite the higher occupational status of newcomers, they had lower incomes than the earliest migrants. As expected, males earned higher incomes than females, but both sexes evidenced the same pattern of increasing income as one moves from the most recent to earlier migrants. Income, therefore, seems to be largely a function of time spent in the recipient community. Newcomers, apparently even those

TABLE 18 Median income of employed Filipinos on Oahu, by migration status, place of residence, and sex (U.S. dollars)

Migration status by sex	Place of residence Kalihi-Palama	 Waipahu-Ewa	 Other Honolulu	 Other Oahu	Total
Male					
Nonmigrants	6,756	10,524	9,488	10,479	9,757
Foreign-born	8,000	8,960	6,970	8,989	8,529
All migrants	8,108	9,266	7,628	9,506	8,896
Total	7,838	9,660	8,277	9,711	9,091
Sample *n*	214	164	94	285	757
Estimated total *n*	4,377	2,369	2,739	4,916	14,401
Female					
Nonmigrants	5,144	5,932	4,922	4,459	5,225
Foreign-born	4,066	4,736	4,133	5,000	4,441
All migrants	4,083	4,650	4,471	5,071	4,497
Total	4,160	5,084	4,634	5,006	4,613
Sample *n*	167	102	52	203	524
Estimated total *n*	3,404	1,532	1,557	3,597	10,091
Both sexes					
Nonmigrants	5,539	8,263	7,945	6,889	7,102
Foreign-born	5,496	6,922	6,195	6,427	6,111
All migrants	5,593	7,058	6,365	6,711	6,362
Total	5,580	7,514	6,623	6,786	6,516
Sample *n*	381	266	146	488	1,281
Estimated total *n*	7,781	3,901	4,296	8,513	24,492

with professional qualifications, generally occupied lower-paying jobs in their early years of adjustment.

The effect of age distribution on income variations was similarly tested. For all age groups above 18, and for both sexes, the foreign-born Filipinos always had lower median incomes than nonmigrants (data not shown). Similarly, within the foreign-born group, the recent arrivals consistently showed lower income levels than the early migrants. Thus, even when the effect of age distribution is taken into account, the same variations can generally be observed.

TABLE 19 Filipinos on Oahu, by place of residence and residence five years before survey (percent)

	Current residence				
Residence five years before survey (1970)	Kalihi-Palama	Waipahu-Ewa	Other Honolulu	Other Oahu	Total
Same house	40.3	47.0	30.0	12.7	39.9
Other house	27.9	28.2	33.2	41.0	32.6
Other island	0.4	0.7	0.3	38.2	0.7
Other U.S. state	0.8	7.6	6.9	1.0	4.2
Other U.S. possession	1.7	1.4	2.6	3.8	2.4
Other country	28.9	15.1	27.0	3.3	20.2
Total	100.0	100.0	100.0	100.0	100.0
Sample *n*	592	610	279	1,148	2,629
Estimated total *n*	19,855	12,510	11,839	24,915	69,120

All in all, the data highlight important contrasts between Filipino migrants and nonmigrants among selected dimensions of socioeconomic status. On the whole, the Filipino immigrants stand below the nonmigrants in the host society's social and economic structure, reflecting their handicap in being socialized elsewhere. Similar variations exist among Filipino migrants of various periods. The data show that more recent migrants have higher occupational status than the early migrants. The advantage of the old-timers, however, in having stayed longer in the host society is reflected in their having generally higher levels of income.

Aside from such factors as place of birth and recency of migration, several other sociodemographic differences among various groups

TABLE 20 Median income of employed Filipino immigrants on Oahu, by years in Hawaii and sex (U.S. dollars)

Years in Hawaii	Male	Female	Both sexes	Sample (*n*)	Estimated total (*n*)
0–7	7,183	4,169	5,349	430	8,753
8–29	10,280	4,837	7,127	267	4,871
30 and over	9,078	5,035	7,989	107	2,107
Total	8,529	4,441	6,111	804	15,730

within the Filipino community appear to have contributed to their varying success in adapting to the new society. Some of these will now be considered.

Demographic differences. The age-sex structure of Filipino migrant and nonmigrant groups is illustrated in Figures 6 and 7, which show vividly that the abnormalities in the population structure of the Filipino community as a whole can be attributed largely to disproportions in the age-sex composition of the immigrant population.

The contrast between the two pyramids is easily discernible. The broad-based, essentially normal structure of the nonmigrant group differs sharply from the narrow-based, highly irregular distribution of the foreign-born population, characterized by the overwhelming predominance of males in the age group 60 years and over. As previously mentioned, this irregularity can be traced to the predominantly male migration from the Philippines in the early part of the century as laborers were recruited for the island's sugar and pineapple plantations.

As we examine Figure 8, however, it becomes apparent that only the prewar migrants were characterized by disproportionately high sex ratios. Indeed, the contrast within the Filipino immigrant population is equally sharp. Whereas the population structure of the old-

FIGURE 6 Age-sex structure of Filipino migrants on Oahu

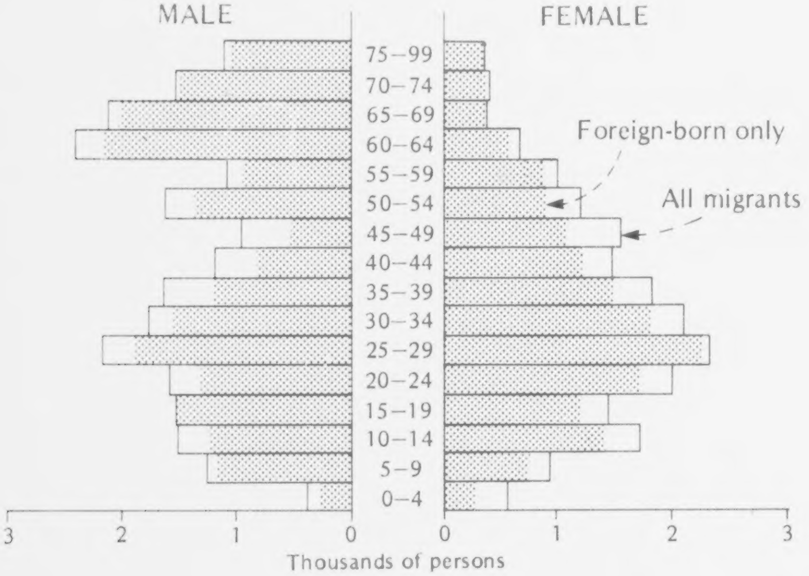
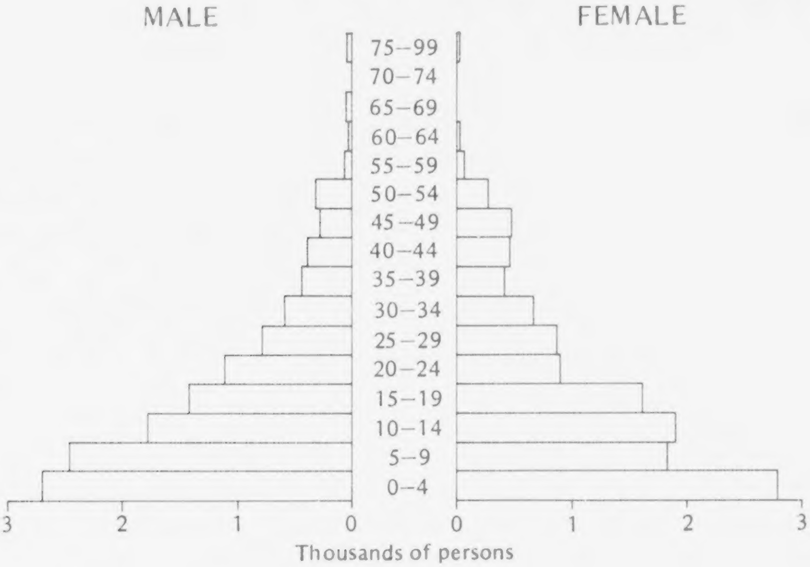


FIGURE 7 Age-sex structure of Oahu-born Filipinos



timers is characterized by an overwhelming predominance of males, the age-sex distribution of the more recent migrants is much more balanced, with a slight predominance of females in some young adult categories. There were more than four males for every female among the earliest migrants. The sex ratio was 97 (that is, 97 males to each 100 females) among migrants who had lived on Oahu for eight to 29 years and 90 among the most recent immigrants. The consequences of such an imbalance among the earliest migrants cannot be overemphasized: The high proportion of Filipino males who were denied normal family associations and sex relations has led to "certain forms of mental breakdown, sex delinquencies and crimes of passion" (Lind, 1967: 36–37).

The contrast between migrants and nonmigrants can also be seen in the great disparity in median age (Table 21). Whereas the nonmigrants had a median age of 13.6, that of the foreign-born was 35.6. This disparity was even greater among males as nonmigrant males were younger than their female counterparts, whereas foreign-born males were older than foreign-born females. The median age of foreign-born males was 41.4, as against only 13.0 of the nonmigrant males.

Differentials in age-sex structure are also manifested in variations in

FIGURE 8 Age-sex structure of Filipino immigrants on Oahu by years in Hawaii and by sex

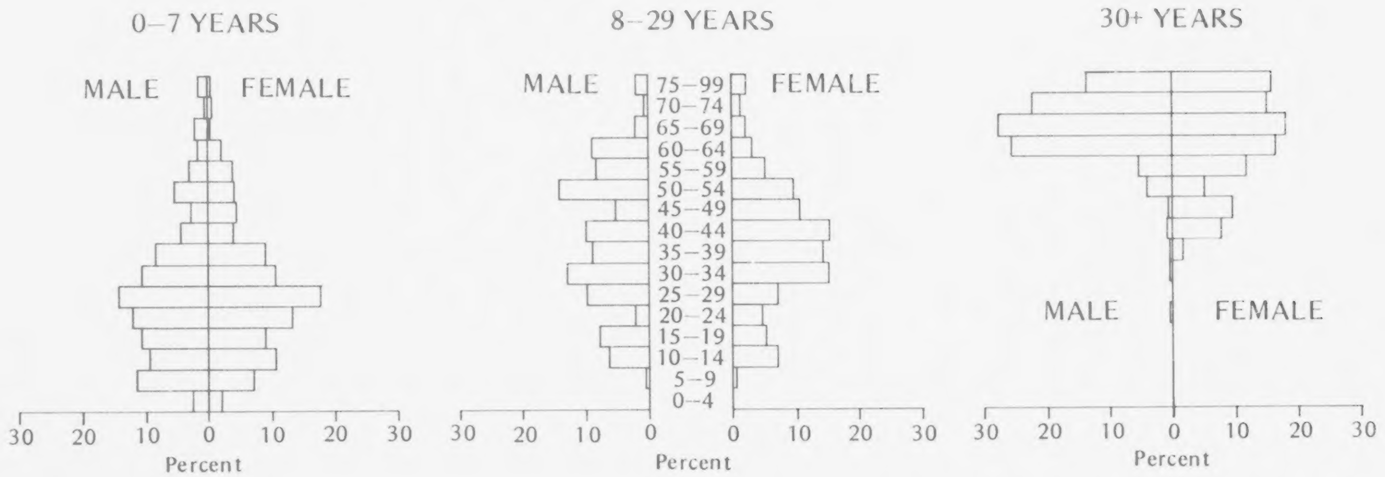


TABLE 21 Median age of Filipinos on Oahu, by migration status and sex

Migration status	Male	Female	Both sexes	Sample (*n*)	Estimated total (*n*)
Nonmigrants	13.0	14.1	13.6	1,397	24,783
Foreign-born	41.4	32.0	35.6	1,925	37,265
All migrants	40.2	32.1	35.8	2,274	43,982
Total	29.1	25.8	27.4	3,671	68,765

marriage patterns. In general, migrants were more likely to be married than the local-born population (Table 22). A closer look at specific age groups, however, reveals that the proportion married was higher only among migrants in the young adult category. Beyond age 30, the proportions remaining single were higher for the foreign-born and migrant populations than for the nonmigrants. The much lower percentage of never married females among the middle-aged Oahu-born is probably a reflection of a higher incidence of intermarriage with

TABLE 22 Never-married Filipinos on Oahu, by broad age groups, migration status, and sex (percent)

	Age group			
Migration status by sex	15–29	30–49	50+	Total
Male				
Nonmigrants	69.3	9.7	4.8	45.4
Foreign-born	55.7	10.9	12.1	23.0
All migrants	55.1	11.0	12.1	22.7
Total	58.9	10.7	11.9	24.1
Female				
Nonmigrants	62.7	2.6	2.7	37.8
Foreign-born	36.6	8.1	0.9	16.6
All migrants	38.6	7.8	0.8	16.9
Total	48.7	7.2	1.0	21.0
Both sexes				
Nonmigrants	65.9	5.8	3.9	41.5
Foreign-born	45.5	9.3	8.9	20.1
All migrants	46.3	9.2	8.8	20.1
Total	53.8	8.7	8.7	23.1

males of other ethnic groups (which indicates a higher degree of assimilation), as well as the slight predominance of females among immigrants in the middle age groups.

Within the foreign-born population, the higher proportions of both men and women remaining single among more recent migrants can be largely attributed to the younger age distributions of the newcomers (Table 23). For the age group 50 years old and over, however, the proportion never married was highest among the earliest male immigrants, reflecting even more vividly the predominance of single males in early migratory movements.

Differentials in educational levels. Differentials in educational attainment are another factor that may have contributed to varying levels of adaptation. Table 24 shows that median number of years of schooling was 12 for nonmigrants compared with only 8.5 for foreign-born Filipinos. The number for all migrants (9.0) was between these two extremes, which means that Filipinos born in other parts of the U.S. also had higher levels of schooling than the foreign-born. Again,

TABLE 23 Foreign-born, never-married Filipinos, by broad age groups, years in Hawaii, and sex (percent)

	Years in Hawaii			
Age group by sex	0–7	8–29	30+	Total
Male				
15–29	55.9	65.3	0.0	60.7
30–49	12.9	4.8	12.2	10.6
50+	0.0	7.3	15.2	11.9
Total	31.9	39.0	12.9	26.2
Female				
15–29	36.6	58.7	0.0	47.3
30–49	10.0	5.7	3.9	6.7
50+	1.4	1.3	0.5	1.0
Total	22.0	35.0	2.7	22.2
Both sexes				
15–29	45.4	62.0	0.0	53.7
30–49	11.3	5.3	7.7	8.4
50+	1.1	4.9	12.2	8.7
Total	26.6	37.0	9.7	24.4

TABLE 24 Median highest grade attained by Filipinos on Oahu 25 years old and over, by migration status, place of residence, and sex (percent)

Migration status by sex	Place of residence Kalihi-Palama	Waipahu-Ewa	Other Honolulu	Other Oahu	Total
Male					
Nonmigrants	12.0	12.0	12.0	12.0	12.0
Foreign-born	6.2	7.2	8.7	8.8	7.7
All migrants	6.6	7.6	9.8	9.8	8.4
Total	6.8	9.4	12.0	11.4	9.8
Sample *n*	262	226	143	411	1,042
Estimated total *n*	5,562	3,393	4,148	6,960	20,064
Female					
Nonmigrants	12.0	12.0	12+	12.0	12.0
Foreign-born	8.5	8.8	12.0	12.0	10.2
All migrants	8.7	11.1	12.0	12.0	11.3
Total	9.5	12.0	12.0	12.0	12.0
Sample *n*	226	190	98	359	873
Estimated total *n*	4,722	2,870	2,982	6,014	16,588
Both sexes					
Nonmigrants	12.0	12.0	12.0	12.0	12.0
Foreign-born	7.1	7.7	9.0	10.3	8.5
All migrants	7.5	8.2	12.0	11.0	9.0
Total	7.9	10.2	12.0	12.0	11.2
Sample *n*	488	416	241	770	1,915
Estimated total *n*	10,284	6,263	7,130	12,974	36,652

See note to Table 9.

differentials can be discerned across residential areas. In accordance with their lower occupational levels, Filipino residents of Kalihi-Palama and Waipahu-Ewa appear to have attained lower educational levels. The discrepancy is again greater among males than among females, as the migrant females seem to have had slightly more schooling than their male counterparts.

The same variations can once more be observed among foreign-born Filipinos and partly explain differentials in occupational status and income. The much higher skills and qualifications of the more recent

TABLE 25 Median highest grade attained by foreign-born Filipinos, by years in Hawaii and sex

Years in Hawaii	Male	Female	Both sexes	Sample (*n*)	Estimated total (*n*)
0–7	12.0	12.0	12.0	1,052	11,827
8–29	11.2	9.4	10.5	448	6,728
30 and over	4.7	5.7	4.9	387	7,301
Total	7.7	10.2	8.5	1,887	25,856

See note to Table 9.

migrants are reflected in the overwhelming disparity in median years of schooling—from a high of 12 years for the latest migrants to a low of 4.9 years for the earliest migrants (Table 25). The number (10.5 years) for migrants present on Oahu for eight to 29 years was lower than that for the most recent migrants (12.0 years).

The statistical information examined here clearly delineates two major groups within the Filipino community, and one is in many ways sharply distinct from the other. At one extreme we find the nonmigrants, the local-born Filipinos who were socialized within the American culture, characterized by a fairly balanced age-sex structure and relatively high levels of educational attainment, occupational status, and income. At the other extreme are the foreign-born Filipinos, less familiar with the opportunity structure of the new environment, who are characterized by an uneven age-sex structure, many without the benefit of a normal family life, and generally standing below the nonmigrants in important dimensions of adaptation. In turn, these differentials are enhanced by a certain degree of segregation to areas where the poorer segments of the Filipino population appear to have clustered, especially within the highly urbanized central core of Honolulu.

The statistical data also document the rapidly changing sociodemographic characteristics of Filipino migrants to Hawaii: The predominantly male, older migrants of early years identified by low educational and occupational status are contrasted with the higher-status migrant groups of recent years, who are more professional in background and have a much more balanced age-sex structure.

Besides variations that can be attributed to place of birth and recency of migration, the evidence highlights the important connections between educational levels and patterns of demographic structure on one hand, and certain objective aspects of economic adaptation on the other. Filipino groups and communities characterized by higher levels of educational attainment and a more normal population structure exhibited higher occupational status and income. All these factors have apparently combined to establish an increasingly diverse Filipino community on Oahu.

CONCLUSION

This overview of some of the important socioeconomic characteristics of the Filipino community on Oahu has focused on the extent to which adaptation (as measured by income and occupation) has occurred among Filipinos as a whole compared to other ethnic groups on the island, as well as among subgroups within the Filipino community. In the process, the factors that may have influenced Filipino adaptation to the host society were identified.

At the broadest level, the data reveal well-defined and consistent patterns of socioeconomic status among major ethnic groups on the island. The evidence confirms the common view that Filipinos as a group occupy the lower strata of the host society's social and economic life. Filipinos had the lowest proportions of male and female labor force participants in the professional/technical/management occupations. At the other extreme, Caucasians had the highest proportions in these occupations, reflecting their traditionally recognized advantage. The situation is similar with income: The median income of employed Filipinos was much lower than that of all Oahu residents and higher only than the median incomes of Samoans and Blacks.

These basic income and occupational patterns suggest the extent to which various groups have adapted to the host community. The traditional model of the adaptation and assimilation process assumes that the immigrant group will eventually acquire the customs, values, and habits of the host society and, as a consequence, move up the social and economic hierarchies after several years (Schmid and Nobbe, 1965:909–922).

This traditional model, however, which is highly simplified, is not adequate to account for the low level of adaptation of Filipinos on Oahu. That the Filipino experience on the island is much more complex has been demonstrated: Filipinos have been handicapped in the adaptation process by (1) their late arrival on the island; (2) the slow pace of urbanization within their community; (3) the large proportion of immigrants in the population; (4) their low levels of educational attainment; (5) their abnormal age-sex structure and the consequent lack of a stable family life; (6) their lesser experience in a trading economy; and (7) patterns of ethnic stratification in the receiving community.

The data also clearly highlight the diversity and division that exist within the Filipino community on Oahu. Disparities were found, first of all, between Oahu-born and foreign-born Filipinos. In particular, Oahu-born Filipinos had generally higher levels of income and occupation than foreign-born Filipinos, reflecting the advantage of the former in being socialized in the American culture and being familiar with the opportunity structure of the host society. Among foreign-born Filipinos, similar contrasts were observed between the migrants of the early decades of the century and the new-wave migrants. Those who joined early migratory flows, in particular, appear to have had greater difficulty in achieving higher occupational levels, since they were characterized by a highly uneven age-sex structure and relatively low educational attainment and socioeconomic origins; migrant flows in more recent years have been more professional in background and much more balanced in age-sex composition. In turn, the diversity of the Filipino community as a whole seems to have been enhanced by a certain degree of spatial segregation, a phenomenon in which the poorer segments of the Filipino community have clustered in certain areas, especially the highly urbanized core of Honolulu.

The sources of diversity and different levels of adaptation are thus varied; they include nativity, recency of migration, shifts in the demographic and socioeconomic composition of immigrant flows, and place of residence. Indeed, the opportunities for meaningful participation in the socioeconomic life of the host society are not the same for local-born Filipinos and Filipino immigrants, and, at least from the evidence reviewed here, the problems of adaptation were most pronounced for the earliest Filipino immigrants.

One important question that emerges in this regard concerns the possible effect of internal division and diversity on the socioeconomic advance of the Filipino community. In many ways, the cleavages seem to have at least impeded the advance of the foreign-born Filipinos, particularly those who came in early years. Although no direct evidence has been presented in this paper, others have observed that Filipino immigrants, in their efforts to participate actively in various aspects of the social and economic life of the host society, often have to cope with resistance from an unlikely source—the Filipino-Americans (Okamura and Coller, n.d.). Such resistance often manifests itself in direct conflict, competition, cleavage, or avoidance in associational patterns (Okamura and Coller, n.d.:3). Therefore, the success of Filipino immigrants on Oahu in coping with problems of adaptation may depend to some extent on the ability of other segments of the community to submerge smaller group sympathies based on socioeconomic status in favor of an overall Filipino identity.

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Nonfamilial roles of women and fertility: Pakistan and the Philippines compared

Nasra M. Shah
and Peter C. Smith

East-West Center
Honolulu, Hawaii

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ABSTRACT A comparison of the fertility behavior of working and nonworking women in Pakistan and the Philippines, based on data from the 1973 National Demographic Survey of the Philippines and the 1975 Pakistan Fertility Survey, shows very different patterns in the two countries. In Pakistan there was no significant difference between the fertility of working and nonworking women. In the Philippines, two types of working women had lower fertility: those who seemed to control their fertility consciously through contraceptive use and those whose fertility was lower owing to factors other than contraceptive use. The latter group was about four times larger than the former.

Some of the reasons for the fertility difference between the two countries seem to be related to the distinct differences that exist between their occupational structures. About two-thirds of the Pakistani women worked at home, compared with about one-third of the Filipino women. More than twice as many of the urban Filipino women were engaged in professional occupations than urban Pakistani women (19 and 8 percent, respectively). The Filipino occupational structure seems more likely to generate mother-worker role conflicts, at least among women in professional occupations, almost all of whom in the present study worked outside the home and had lower fertility than nonworking women.

The relationship between nonfamilial roles of women and fertility has been the subject of a growing body of literature on the less developed countries (LDCs). Nonfamilial roles have often been defined according to sectors of the economy. Several writers have shown that a clear negative relationship between work participation and fertility is often lacking and where present is typical only of small subgroups of women (Jaffe and Azumi, 1960; Stycos, 1965; Stycos and Weller, 1967; Weller, 1968; Zarate, 1967; and Goldstein, 1972).

A few studies using aggregate data have shown a negative relationship for some Latin American and Southeast Asian countries (Heer and Turner, 1965; Maurer et al., 1973; Collver, 1968; Hass, 1972); others using individual data have also shown similar patterns (e.g., Harman, 1970; Vallin, 1978). That the association between female work and fertility in the LDCs is not always clear and inverse as it usually has been in the more developed countries has led to the development of several hypotheses or frameworks attempting to explain this unexpected finding. (See Kupinsky, 1977, for a synthesis of recent studies on female work and fertility.)

Using Turkish data, Stycos and Weller (1967) concluded that if the nature of jobs was such that the jobs did not generate incompatibility between the roles of mother and worker there was minimal effect on fertility. The argument suggesting an inherent compatibility of the mother and worker roles for many jobs, particularly in the unorganized sector in the LDCs, has been used widely in subsequent writings (e.g., the studies in Kupinsky, 1977). Other arguments related to work commitment and alternative identity have been offered as possible explanations. Safilios-Rothschild (1977) argues that women's high work commitment depresses fertility more than does women's work when commitment is lacking. Furthermore, she states that women's work may not depress fertility as long as it does not provide an alternate identity to motherhood that is equally important to women. Third, she emphasizes the choice element in work participation. In many low-income families, she asserts, a woman's work is essential to the support of her family, and such work may not be accompanied by the motivation to control family size. In addition to these socio-psychological explanations, Fong (1976) has pointed out weaknesses in the measurement of variables involved in studying the relationship between female work and fertility as one possible reason for the ambiguity of results.

In Pakistan, only a few studies have explored the relationship between female work participation and fertility (Nasra Shah, 1975, 1977; Syed, 1978), although the general area of female labor force participation has been investigated more intensively (e.g., Farooq, 1975; Bean, 1968; Nasra Shah et al., 1977; Nasra Shah and Makhdoom Shah, 1980). Women's economic activities in the rural areas have been studied by some researchers (Khan and Bilquees, 1976; Saeed, 1966). Fertility of working women (number of children ever borne) was found to be similar to that of the nonworking women, when data from the 1973 Housing, Economic and Demographic Survey were used. The survey defined a working woman as one who was employed for pay or profit or was working as an unpaid family helper for 15 or more hours during the week prior to interview. Analysis from the 1968 National Impact Survey showed that working women were not significantly different from nonworking women in their desires for another child.

In the Philippines relatively more work has been done on the subject. Analyses of data from the 1968 National Demographic Survey (NDS) provide some evidence, although the results are mixed. Focusing on retrospectively estimated age-specific marital fertility, Pullum (1975) found that women who were not currently in the labor force had uniformly higher marital fertility than those "employed with pay." When Concepción et al. (1975) examined total marital fertility and recent fertility in the same sample, they observed no systematic differentials. Another analysis of regressions of the number of births on current labor force participation and other variables—including duration of marriage, husband's income, wife's education and place of residence—yielded negative coefficients for wife's labor force participation (Encarnación, 1973, 1978). In another regression study of the same data, Harman (1970) tested a model in which number of live births is influenced by wife's current labor force participation, and in which her labor force participation before marriage influences the open birth interval through its effect on age at marriage. Harman found a trade-off between labor force participation and childrearing, but only among younger women; at older ages, working women had more children than nonworking women. On the other hand, work before marriage was clearly associated with later marriage and, presumably, with lower subsequent childbearing.

Newer data have supported other analytic approaches. Rosenzweig's (1976) analysis of the 1973 NDS round focused on joint influences between labor force participation and fertility. The author found that fertility expectations diminished with work experience, but only slightly and only at the later ages.

Female labor force participation has also been examined in the context of a larger system of demographic and economic relationships, most notably by Rodgers et al. (1978), and earlier by Kintanar et al. (1974). The International Labour Organisation's BACHUE-II economic-demographic model reported by Rodgers et al. incorporates a dependency of marriage rates (and hence fertility) on labor force participation before marriage.

Two comments on this literature are appropriate here. First, all these studies, save perhaps that by Rosenzweig, suffer from an inability to sort out the direction of causality between labor force participation and fertility. Second, working women are generally treated as a homogeneous group with respect to fertility consequences. Most studies including the present one suffer from the first deficiency, but we make some headway respecting the latter. Our analysis of the relationship between female work participation and fertility in Pakistan and the Philippines is based on the latest data available to us for the two countries.

RATIONALE FOR COMPARING PAKISTAN AND THE PHILIPPINES

For several reasons, Pakistan and the Philippines invite comparison. Both are countries with high levels of fertility. The crude birth rate of Pakistan seems to have been around 42–44 per thousand for some time (Afzal, 1974). The Philippine crude birth rate, now about 34 per thousand, was nearly 43 per thousand around 1970 and even higher before that. (For the 1970 estimate see Concepción and Smith, 1977: 25. The recent estimate is that of the Population Institute, University of the Philippines, and is supported by reports of the 1978 Republic of the Philippines Fertility Survey.)

Moreover, children seem to be highly valued in both societies. Both countries are known to have strong, though very different, religious orientations. Levels of contraceptive use among currently married women are not high, although at the time of the surveys used for our study the percentage of current use was three times as high in the Philippines as in Pakistan (17 percent and 5 percent, respectively).

In contrast to some of these similarities, the Philippines is strikingly more developed in some of the developmental and intermediate variables that affect fertility—e.g., female literacy, educational attainment, urbanization, and age at marriage. In congruence with the high educational levels, the female occupational structure in the Philippines is considerably more diverse than that in Pakistan. Furthermore, a substantial proportion of Filipino working women is engaged in occupations requiring employment outside the home. About 20 percent of all working women in the Philippines were in professional occupations, compared with only 3 percent in Pakistan.

From its pattern of female occupations, Pakistan can be regarded as typical of countries with low occupational differentiation. Most female economic activity in Pakistan takes place within the home and in the unorganized sector. The majority of jobs are therefore not likely to generate mother-worker role conflict. Furthermore, most of the jobs provide low prestige and are unlikely to foster an alternate identity. It is only in the small subgroup of highly educated and affluent women in prestigious occupations that some of the theoretical frameworks mentioned above are likely to apply.

The Philippines, on the other hand, is more advanced in the process of female occupational differentiation, and the subgroups to whom such arguments can apply are fairly sizeable. For example, 41 percent of currently married urban Filipino female workers were engaged in professional, clerical, and administrative occupations. Not all of such jobs are likely to be highly ranked in the hierarchy of jobs, but over 90 percent of them are situated outside the home and involve an employer.

Considering these differences between the two societies, and the existing theoretical frameworks, we begin with the following expectations. In Pakistan, a negative relationship between work participation and fertility will be present only for women of relatively high socioeconomic status and in prestigious occupations, if at all. In the Philippines, the negative relationship will be stronger and more widespread, and will be most significant for women of high socioeconomic status (SES) in prestigious occupations.

DATA

We have used data from the 1975 Pakistan Fertility Survey (PFS) and the 1973 National Demographic Survey (NDS) of the Philippines. The PFS was part of the World Fertility Survey (WFS) and included basically the core questionnaire for the WFS, which provided information on maternity and marital histories, contraceptive knowledge and use, exposure to mass media for ever married women up to age 49, and the education levels and occupations of both spouses. (For details of sampling and initial results see Population Planning Council, 1976.) Altogether, 4,663 currently married women were interviewed. The present analysis is based on relevant subgroups of these women as described below. The 1973 NDS encompassed 8,434 households throughout the Philippines and involved interviews with 9,412 ever married women between the ages of 15 and 50. Pregnancy histories and partial marital histories were collected, as well as socioeconomic information including standard labor force information and answers to a block of in-depth workforce questions. Results of the survey appear in various reports of the Population Institute, University of the Philippines.

We have based our definitions of female extrafamilial work in

Pakistan and the Philippines on the following questions asked in the PFS and the NDS, respectively.

> Q. (PFS) "As you know many women work. . . , I mean aside from doing their own housework. Some take up jobs for which they are paid in cash or kind. Others sell things or have a small business. Are you doing any such work at the present time?" If the answer was yes, information on the type of occupation, nature of employment (self versus other), place of work, and nature of income (cash or kind) was collected.
>
> Q. (NDS) "If you consider your total time and activities, what do you spend most of your time on?" (question C1) If response was "working," question C2 followed: "What is the exact nature of this activity you are engaged in?"

The concepts underlying these questions are similar though not identical. In both surveys informal as well as formal activity for either cash or noncash payment was recorded, and in neither was a reference time period used. But in the Philippine survey an occupation was recorded only when "most" of a respondent's time was devoted to it. The extent and range of economic participation is therefore understated somewhat in the Philippine data, as is the difference in participation patterns between Pakistan and the Philippines.

Work participation and fertility measures

We have used three approaches to specifying different dimensions of work. We distinguish (1) working women versus nonworking women; (2) among working women, women who were working at home versus those who were working outside; and (3) women in different occupational categories. Working women were grouped into four occupational categories for Pakistan and five occupational categories for the Philippines. Pakistani and Filipino working women were divided into professionals, farmers, tailors/weavers, and a fourth category of workers in other occupations. In addition, women in sales occupations were treated as a separate category in the Philippines because of the rather large number of sales workers in that country. To establish a time frame of work participation, we have used work (or nonwork) since marriage as the independent variable in the analyses of recent fertility (defined as fertility during the five years prior to survey) and number of children ever born to a respondent (CEB). Current work participation was used as the independent variable in the analysis of desire for another child.

Three fertility measures were used as dependent variables: number of births in the five years prior to survey, number of children ever born, and desire for an additional child. Our objective in using these measures has been to study the effect of work participation on completed family size, recent fertility, and desired fertility. All these measures are demographically important. Recent fertility is of interest because the family planning programs in Pakistan and the Philippines began only a few years ago, in 1965 and 1970, respectively. The emphasis on conscious fertility control and the widespread availability of contraceptives are relatively recent phenomena. Therefore, even though the average number of children ever born may not have been significantly affected by the programs, recent fertility among working women might have been influenced because of the greater availability of contraceptive services affecting birth spacing.

It has often been assumed that desire for additional children is related to behavior designed to promote or prevent future births. Nasra Shah and Palmore (1979) have shown that in Pakistan contraceptive use was significantly higher among women who did not want another child than among women who did. Given this behavioral implication of desire for additional children, it is important to study how work participation affects the desire for an additional child. Such a study would provide estimates of the potential demand for fertility control among working and nonworking women.

The method of analysis

We examine the relationship between work participation and fertility behavior with multiple classification analysis (MCA), a form of dummy variable regression that is well suited for analysis of data with categorical variables. We have attempted to use occupational classifications that ensure comparability between the two countries. In addition to the work participation variables described above, relevant background variables have been used as covariates or factors in the MCA analysis, as described in Table 1. Besides the age specification (10–44) used in selecting women for analysis, our criteria for the sample to be analyzed included women who were not pregnant at the time of survey and who believed themselves to be fecund. Subfecund and pregnant women

TABLE 1 Model specifications and variable descriptions for the three fertility variables: Pakistan and the Philippines

Regression on	Covariates	Factors
Births during previous 5 years (number)	Age of wife (10–44) Age of wife squared Duration of breastfeeding[a] (in months)	Wife's education (none, <5 years, 5+ years) Husband's education (none, <5 years, 5+ years) Contraceptive use over last two birth intervals (Yes/No) 3 work status variables[b]
Number of children ever born (CEB)	Age of wife (35+) Duration of breastfeeding[a] Duration of marriage (in years) Duration of marriage squared	Same as above
Desire for another child (dichotomous Yes/No variable)	Age of wife (10–44) Age of wife squared Number of living children Number of living children squared Wife's age at first marriage	Same as above except contraceptive use defined as current use

[a] Duration of breastfeeding during the last closed interval was considered to be a proxy for general breastfeeding behavior. The analysis was restricted to women who had had at least two live births because only they could have had this duration of breastfeeding.

[b] The three variables were working/not working, workplace (home/outside), and type of occupation.

were excluded from the analysis in order to focus more closely on women who had been exposed to childbearing during the recent past and whose desires about wanting another child were likely to be realistic.

Control variables and expected relationships

We chose certain background variables because of their expected direct and indirect effects in the multivariate analysis. Age of wife was expected to have an effect on actual as well as desired fertility. Actual fertility is known to be positively related to age, although age has a relatively smaller (or declining) effect on fertility beyond a certain point. The age of a woman is also related curvilinearly to her propensity to enter the labor force (as shown in Table 2), and it was therefore necessary to control for this effect of age before analyzing the relationship between work participation and fertility.

Lactation is known to have a direct effect on birth intervals (and by implication on recent as well as completed fertility) through lengthening the period of postpartum amenorrhea (Potter, 1965; Iqbal Shah, 1980); for that reason we considered it an important control variable in this study. Duration of breastfeeding varies by such socioeconomic factors as women's education, being longer among illiterate and less educated women in several WFS countries (Williams, 1979). It is likely to be negatively affected by employment outside the home, especially among women whose jobs prevent them from being accompanied by their children. Thus, work participation may exert an indirect negative effect on fertility by shortening the length of breastfeeding.

The effect of female education on fertility can be routed through several channels. First, more educated women may enter the labor force if jobs are readily available to them. High prestige occupations (such as in medicine and teaching) are usually associated with high education. They are likely to be situated outside the home and probably impose greater constraints on fertility (by being incompatible with the mother role) than other jobs that are relatively low in prestige and located at home. Second, the process of education may lower family-size norms and educated women may want fewer children. Third, educated women may have greater access to the contraceptive methods of fertility control than other women—both for monetary reasons and because of greater knowledge of such means. Another factor that needs to be considered because of its possible effect on both education and fertility is the respondent's family of orientation.

Contraceptive use is expected to exert a direct inverse effect on fertility through the limitation and the spacing of births. In some cases the effect may be facilitated by female work participation, especially outside the home because outside activity may provide more chance for a woman to gain knowledge about contraception.

Duration of marriage is a significant variable in societies where most childbearing takes place within marital unions. Among women who have been married only once and are currently married, marriage

TABLE 2 Age-specific labor force participation rates of currently married women, for total, urban, and rural areas: Pakistan (1975) and the Philippines (1973)

Woman's age	Pakistan[a]						Philippines[b]							
	Urban and rural		Urban		Rural		Metro, Urban, and rural		Metro		Urban		Rural	
	%	(N)	%	(N)	%	(N)	%	(N)	%	(N)	%	(N)	%	(N)
<20	15	(118)	13	(36)	15	(78)	14	(34)	0	(0)	5	(2)	17	(32)
20–29	35	(289)	35	(97)	36	(186)	22	(453)	21	(41)	23	(96)	21	(316)
30–39	28	(230)	30	(83)	28	(145)	32	(781)	39	(83)	35	(195)	30	(503)
40–49	22	(178)	22	(61)	22	(114)	30	(552)	27	(39)	38	(146)	28	(367)
All ages	18	(814)	16	(277)	18	(523)	27	(1,820)	29	(163)	31	(439)	26	(1,218)

[a] Weighted number for the total country; unweighted for rural and urban.

[b] In this and subsequent tables the sample frequencies shown are approximate sample frequencies obtained from weighted results and the overall sampling fraction.

SOURCES: 1975 Pakistan Fertility Survey and 1973 Philippine National Demographic Survey.

duration is expected to have an effect on fertility similar to that of a woman's age. The correlation between age of wife and duration of marriage is particularly high in cases where the age at marriage falls within a narrow range.

Finally, the rural or urban background of women is related to the type of economic activity women are likely to engage in. In addition, institutional and normative structures that influence fertility are likely to be quite different in rural and urban settings. We have therefore examined women residing in rural and urban areas separately.

RESULTS

The analysis is divided into two broad sections consisting of a general description of the labor force participation levels and occupational structures in the two countries and a multivariate analysis of the relationship between female work participation and fertility. More than one-fourth (27 percent) of the Filipino women were reportedly engaged in some economic activity in 1973 according to the NDS, compared with 18 percent of all Pakistani women in 1975 (Table 2). Younger women (<20) reported lower participation rates in both countries, whereas the age of peak activity varied from 20–29 in Pakistan to 30–39 in the Philippines. After age 40 activity rates declined in both countries but considerably more in Pakistan than in the Philippines.

Differences in occupational structure

Rural occupations for women are severely limited in Pakistan; roughly the same proportion of Pakistani and Filipino respondents were engaged in agricultural work (37 percent and 39 percent respectively), but the occupational concentration of women within the nonagricultural occupations was much greater in Pakistan than in the Philippines (Table 3). The crafts occupations alone absorbed 52 percent of the rural women in Pakistan, whereas rural nonagricultural women in the Philippines were found in a range of occupations, notably in commerce and domestic service which are restricted occupations for Pakistani women. Both commerce and domestic service were occupations dominated numerically by women in the rural Philippines.

The contrast between countries was sharper still in the urban sector, where Filipino women were much more widely distributed in commerce, the professions, and the services. Pakistani women worked

TABLE 3 Occupational distribution of wives who had worked since Philippines (1973)

	Pakistan				
	Urban			Rural	
	Percentage distribution		Sex ratio	Percentage distribution	
Occupation	Males	Females	(M/F×100)	Males	Females
All occupations	**100**	**100**	**510**	**100**	**100**
(Number)	(1,804)	(354)		(3,006)	(593)
Professional, technical, and administrative	**9**	**8**	**528**	**3**	**2**
Professors, teachers	3	6	204	1	*
All others	6	2	1,767	2	1
Clerical, sales	**32**	**2**	**8,157**	**9**	**2**
Working proprietors, traders	11	1	4,875	4	*
Sales personnel	5	*	4,800	1	*
All others	16	*	28,000	4	*
Transportation and communication	**5**	**0**	**0**	**4**	**0**
Crafts and general labor	**36**	**68**	**273**	**20**	**52**
Tailors, desssmakers, etc.	2	40	31	*	26
All others	34	28	615	20	26
Service and sport	**10**	**20**	**267**	**7**	**7**
Housekeepers, cooks, maids, etc.	*	12	21	*	6
All others	10	8	659	7	1
Agriculture and mining	**8**	**2**	**2,014**	**57**	**37**

NOTE: A zero means there were no cases in the specified category.

* Less than 1 percent.

SOURCES: 1975 Pakistan Fertility Survey; 1973 Philippine National Demographic Survey.

disproportionately in the craft occupations and domestic service. The sex ratios within urban occupational groups are a useful index of female employment patterns vis-à-vis male. In urban Pakistan most occupational groups with the exception of tailors and domestic servants were dominated numerically by males, some of them overwhelmingly so, whereas the reverse was true of many Philippine occupational groups (Table 3).

marriage and their husbands, by region: Pakistan (1975) and the

	Philippines					
	Urban			Rural		
	Percentage distribution		Sex ratio	Percentage distribution		Sex ratio
Sex ratio (M/FX100)	Males	Females	(M/FX100)	Males	Females	(M/FX100)
507	**100**	**100**	**167**	**100**	**100**	**310**
736	13	19	111	2	8	81
1,200	2	12	24	*	7	32
562	11	7	271	2	1	340
2,740	**22**	**37**	**100**	**5**	**23**	**63**
2,420	6	11	89	2	9	61
1,200	7	15	112	2	12	48
5,850	9	12	135	1	2	152
0	**18**	**1**	**2,896**	**8**	*	**4,500**
199	**25**	**10**	**400**	**9**	**19**	**148**
18	2	5	59	*	8	12
378	23	5	767	9	11	240
498	**9**	**30**	**49**	**2**	**10**	**79**
14	4	27	22	*	9	15
3,317	5	3	284	2	1	459
780	**13**	**2**	**1,000**	**74**	**39**	**582**

Tables 4 and 5 provide additional data on differences in the occupational structures of Pakistani and Filipino women. More than four-fifths of all currently married working women in the Pakistani sample were engaged in one of two occupations, crafts (53 percent) or farming (26 percent). Within the urban areas a majority (65 percent) were in crafts, whereas 19 percent were domestics and only 9 percent were working as teachers, nurses, or other professionals (Table 4). In

TABLE 4 Percentage distribution of current occupations by place of work and working status, urban and rural currently married women: Pakistan (1975)

Residence, place of work, working status	Profession-als (nurses, teachers, others)	Clerical, adminis-trative, sales	Farm workers	Service (house-keepers, domestics)	Spinners, weavers	Tailors	Other crafts	Unskilled workers and laborers	All occu-pations
URBAN									
Work at home									
Employee	0	0	0	0	28	7	3	29	9
Self-employed	13	80	17	2	68	91	60	14	58
Work outside home									
Employee	79	20	83	94	4	2	34	43	30
Self-employed	8	0	0	4	0	0	3	14	2
Total urban	100	100	100	100	100	100	100	100	100
(Number)	(24)	(7)	(6)	(53)	(50)	(102)	(25)	(7)	(274)
RURAL									
Work at home									
Employee	0	0	0	3	8	11	5	0	5
Self-employed	0	40	*	0	91	82	73	16	42
Work outside home									
Employee	67	0	75	83	0	2	2	36	37
Self-employed	33	60	25	13	1	5	20	48	16
Total rural	100	100	100	100	100	100	100	100	100
(Number)	(6)	(10)	(203)	(30)	(79)	(131)	(37)	(25)	(521)

NOTE: A zero means there were no cases in the specified category.

* Less than 1 percent.

SOURCE: 1975 Pakistan Fertility Survey.

TABLE 5 Percentage distribution of current occupations by place of work and working status, urban and rural currently married women: Philippines (1973)

Residence, place of work, working status	Professionals (nurses, teachers, others)	Clerical, administrative	Traders	Sales clerks	Farmers	Service (housekeepers, domestics)	Seamstresses, tailors	Basket weavers	Other crafts	All occupations
URBAN										
Work at home										
Employee	1	4	2	12	0	12	9	0	10	5
Self-employed	6	2	46	16	25	12	56	100	13	20
Work outside home										
Employee	90	93	5	25	12	63	33	0	61	55
Self-employed	3	1	47	47	63	13	2	0	16	20
Total urban	100	100	100	100	100	100	100	100	100	100
(Number)	(158)	(83)	(107)	(92)	(8)	(59)	(43)	(2)	(31)	(583)
RURAL										
Work at home										
Employee	0	0	7	3	9	15	18	8	32	10
Self-employed	0	0	58	10	4	31	69	88	46	24
Work outside home										
Employee	97	100	3	8	57	41	10	1	18	40
Self-employed	3	0	32	79	30	13	3	3	4	26
Total rural	100	100	100	100	100	100	100	100	100	100
(Number)	(99)	(6)	(104)	(109)	(560)	(39)	(113)	(66)	(72)	(1,168)

NOTE: A zero means there were no cases in the specified category.

SOURCE: 1973 Philippine National Demographic Survey.

contrast to this degree of concentration, Filipino women were fairly equally divided among four or five occupations. Nearly 20 percent of the women were in professional or clerical occupations, 23 percent were working as sales persons, and only 18 percent of the women were in crafts. Contrasts between the two countries' urban occupational structures are particularly noteworthy. Forty-one percent of the urban Filipino women were professional or clerical workers, compared with only about 11 percent of urban Pakistani women. Similarly, 34 percent of the urban Filipino women were in sales occupations, but this category was almost nonexistent in urban Pakistan.

These differentials in the occupational structures of the two countries are indicative of some of their basic cultural differences. Most of the jobs for women in Pakistan maximize work within the home and minimize contact with an employer (Tables 4 and 5). About two-thirds (67 percent) of all urban jobs were located in the home and 60 percent did not involve an employer. In the rural areas relatively more of the work took place outside the home mainly because women were engaged in farm work. In contrast to these patterns, 60 percent of urban Filipino women were employed by someone else and 75 percent of them worked outside the home; the patterns were less marked but similar for rural Filipino women. Such differences in the place and nature of work probably indicate that the types of jobs that are permissible or available to women in the two societies are notably different. Filipino society is less restrictive in allowing women to leave their homes for work and does not seem to discourage contact with employers, who in many cases are male. Norms relating to the sheltering of women are stronger in Pakistan, as reflected in the prevailing occupations, places of work, and employment statuses of women.

These contrasts between the two countries in place of work and employment status are also present for specific occupations. For example, considerably larger proportions of urban women employed as tailors were working outside the home in the Philippines than in Pakistan (35 and 2 percent respectively). This finding implies that the activity was organized in formal establishments to a greater degree in the Philippines. For certain other occupations, the place of work and employment status were similar in the two countries; for example, most spinners and weavers were working at home.

Characteristics of working and nonworking women

We compared working and nonworking women on several socioeconomic and demographic characteristics in the two countries (Tables 6 and 7). The differences between working and nonworking Pakistani women were found to be fairly small for most characteristics. A slightly larger proportion of the nonworking women and their husbands were literate; somewhat larger proportions of them knew about and had used family planning methods; and fewer of them wanted additional children. Thus, nonworking women were more "modern" than working women in their outlook as judged by these characteristics. A similar pattern of findings emerged for women within rural and urban areas.

The differences between working and nonworking women were greater among Filipinos, particularly in urban areas. Working women in metropolitan and other urban areas had married up to one and a half years later than their nonworking counterparts; significantly larger proportions of them than of nonworking women were using contraceptive methods. As expected from their contraceptive behavior, urban working women had somewhat lower fertility in the five years prior to the survey. Similarly, larger proportions of working than of nonworking women in rural areas were using contraception (15 versus 11 percent). Working women in metropolitan and other urban areas had attained higher levels of education compared with nonworking women. For example, the mean grades attained by working metropolitan women were 10.8 compared with 8.7 for nonworking women. Among the rural women, on the other hand, there was only a negligible difference in grade attainment between working and nonworking women. A similar pattern of higher educational levels among working women in metropolitan and other urban areas was found when husband's education was examined. These findings imply that, on the average, working women in urban areas belonged to a relatively high socioeconomic level whereas in rural areas women in the labor force tended to have relatively low socioeconomic status.

This background about working and nonworking women in the two countries indicates some noticeable differences in the characteristics of working and nonworking women. Pakistan represents a situation where the working women belong to relatively less educated households, particularly in the urban areas. On the contrary, the working Filipino women in urban areas belong to relatively more educated

TABLE 6 Socioeconomic and demographic characteristics of working and nonworking currently married women, ages 15–44, by specified characteristics: Pakistan (1975)

	Worked since marriage[a]			Never worked since marriage			
Characteristic	Urban	Rural	All working women	Urban	Rural	All nonworking women	All currently married women
$\bar{X}$ age	28.9	28.0	28.2	29.0	29.0	29.0	28.9
$\bar{X}$ age at marriage	16.6	16.0	16.2	16.8	16.5	16.5	16.4
% wives literate[b]	24.8	5.0	9.9	28.3	5.8	11.7	11.3
Wife's education ($\bar{X}$ number of grades passed)	1.5	0.2	0.6	1.9	0.4	0.7	0.7
% husbands literate[b]	54.8	35.8	40.5	63.7	36.2	43.4	42.8
Husband's education ($\bar{X}$ number of grades passed)	4.2	2.2	2.7	5.4	2.3	3.1	3.0
$\bar{X}$ number of children ever born	4.2	3.7	3.8	4.1	3.9	4.0	4.0
$\bar{X}$ number of living children	3.3	2.9	3.0	3.3	3.0	3.1	3.1
$\bar{X}$ number of children born during past 5 years	1.2	1.1	1.1	1.2	1.2	1.2	1.2
$\bar{X}$ number of children desired (ideal)	3.9	4.5	4.3	3.9	4.2	4.1	4.2
% knowing of a family planning clinic	50.3	22.6	29.4	56.0	26.9	34.5	33.6
% knowing family planning personnel	34.7	23.4	26.2	40.3	25.8	29.6	28.9
% knowing of family planning method	84.0	70.7	74.0	82.8	73.9	76.3	75.8
% who ever used contraception	19.1	5.7	9.1	23.1	6.2	10.6	10.3
% currently using contraception	9.2	2.8	4.4	13.0	2.6	5.3	5.1
% wanting more children	50.4	64.7	61.1	49.9	57.2	55.3	56.4
$\bar{X}$ number of additional children wanted	1.1	1.6	1.4	1.0	1.3	1.3	1.3
Number in sample	200	605	805	887	2,509	3,396	4,201

[a] Of all the women who had worked since marriage, 90 percent were currently working.

[b] Had any schooling.

SOURCE: 1975 Pakistan Fertility Survey.

TABLE 7 Socioeconomic and demographic characteristics of working and nonworking currently married women, ages 15–44, by specified characteristics: Philippines (1973)

Characteristic	Worked since marriage[a]				Never worked since marriage				All currently married women
	Metro	Other urban	Rural	All working women	Metro	Other urban	Rural	All non-working women	
$\bar{X}$ age	32.9	33.0	32.5	32.7	30.5	31.1	30.8	30.9	31.5
$\bar{X}$ age at marriage	22.3	21.5	19.5	20.2	21.0	20.1	19.2	19.5	19.8
% wives literate[b]	99.7	98.5	87.0	90.9	99.1	96.8	93.7	94.8	93.4
Wife's education ($\bar{X}$ number of grades passed)	10.8	10.0	5.3	6.9	8.7	7.8	5.4	6.2	6.4
% husbands literate[b]	100.0	97.0	85.7	89.7	99.6	98.0	92.5	94.2	92.5
Husband's education ($\bar{X}$ no. of grades passed)	11.0	10.1	5.2	6.9	10.1	8.7	5.6	6.6	6.7
$\bar{X}$ number of children ever born	3.5	3.8	4.7	4.4	3.5	4.0	4.4	4.3	4.3
$\bar{X}$ number of living children	3.2	3.5	4.1	3.9	3.3	3.8	4.0	3.9	3.9
$\bar{X}$ number of children born during past 5 years	1.0	1.2	1.4	1.3	1.3	1.4	1.5	1.4	1.4
$\bar{X}$ number of children desired (ideal)	3.9	4.2	5.0	4.7	3.8	4.5	4.8	4.7	4.7
% knowing of a family planning clinic	68.5	70.4	50.9	59.4	68.2	72.2	52.2	57.4	58.1
% knowing family planning personnel	12.0	34.1	23.8	25.2	18.0	30.6	24.0	24.8	24.1
% knowing of family planning method	97.1	96.6	81.2	86.4	94.8	91.8	85.0	87.1	86.8
% who ever used contraception	51.8	49.1	24.0	32.6	42.3	39.0	19.5	25.1	27.9
% currently using contraception	34.0	32.6	15.4	21.0	26.8	23.9	11.4	15.0	17.2
% wanting more children	32.6	30.5	32.2	31.8	29.4	32.4	30.7	31.0	31.3
$\bar{X}$ number of additional children wanted	0.7	0.7	0.9	0.9	0.8	0.9	0.8	0.8	0.9
Number in sample	197	496	1,381	2,074	284	682	2,539	3,505	5,579

[a] Of all the women who had worked since marriage, 72 percent were currently working.

[b] Had any schooling.

SOURCE: 1973 Philippine National Demographic Survey.

households. Thus, besides the differences in occupational structure pointed out above, there seem to be some differences in the basic socioeconomic background of working and nonworking women in the two countries. Whether these differences in the nature of work roles affect fertility behavior in the two countries after several background variables are controlled is investigated next.

NATURE OF FEMALE WORK AND FERTILITY

We studied the overall relationship between the three work variables (whether working, work place, occupation) and fertility by conducting a hierarchical analysis of variance (Table 8). In the case of Pakistan, none of the work variables had a significant effect on fertility after the several covariates and factors listed in Table 1 were controlled. The results were nonsignificant for each of the three fertility measures (number of births during previous five years, number of children ever born, desire for another child) and for both rural and urban areas. In contrast to Pakistan, the Filipino sample showed several statistically significant results for each of the three fertility measures. For example, each of the three work variables had a significant effect on the number of births Filipino women had in urban areas during the five years prior to the survey. Place of work and work status also had significant effects on the number of births in the previous five years in rural areas. The MCA results showing the effects of specific independent variables on the three fertility measures are presented in Tables 9–14.

Births during the five years prior to the survey

Pakistani women who were economically active had somewhat fewer births in the five years prior to the survey than nonworking women, although the differences were statistically insignificant (Table 9). For example, rural women who were working outside the home had about 7 percent fewer births than the nonworking rural women.[1] In the

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[1] For Pakistan an examination of the interaction effects between the independent variables showed a significant interaction between husband's education and wife's place of work, in relation to desire for another child. To test whether this interaction was significant for recent fertility, an interaction term was created and entered into the MCA on children born during the five years prior to the survey. The R^2 remained virtually unchanged in urban areas and increased by 0.5 percent in rural areas when the interaction term was included. The overall effect of the interaction term was not significant for urban or rural areas.

TABLE 8 Hierarchical analysis of variance for births during 5 years prior to survey, by three work variables: Pakistan and the Philippines

Work variable[a]	Sum of squares	DF	Mean square	F	Significance of F[b]
PAKISTAN					
Whether working					
Urban	0.593	1	0.593	0.593	NS
Rural	1.645	1	1.645	2.056	NS
Work place					
Urban	0.593	2	0.297	0.295	NS
Rural	2.127	2	1.063	0.335	NS
Occupation					
Urban	3.696	4	0.924	0.914	NS
Rural	5.740	4	1.435	1.801	NS
PHILIPPINES					
Whether working					
Urban	11.590	1	11.590	15.505	<.001
Rural	0.041	1	0.041	0.058	NS
Work place					
Urban	11.813	2	5.906	7.855	<.001
Rural	8.422	2	4.211	5.980	<.01
Occupation					
Urban	13.618	5	2.724	3.620	<.01
Rural	3.184	5	0.637	0.896	NS

NOTE: The analysis of variance results shown in this table was obtained by using the hierarchical option, and the work variables were entered into the model after the three covariants and all the independent variables in each run. This means that the effects of all preceding variables were taken into account before the analysis was performed on the work variables in question.

[a] The work variable was highly significant when its interaction with contraception was included in the analysis. See Table 15, Equation 1, and discussion in text.

[b] The three work variables were not significant in Pakistan even for the other two dependent variables (number of children ever born and desire for another child). The results for the Philippines were as follows:

Work variable	CEB		Desire another child	
	Urban	Rural	Urban	Rural
Whether working	<.01	NS (but significant when interaction with contraceptive use is considered. See Table 15, Equations 3 and 4.)	NS	<.001
Work place	<.01	NS	NS	<.001
Occupation	NS	<.05	NS	<.001

TABLE 9 Multiple classification analysis of births 5 years prior to survey, by selected independent variables, urban and rural: Pakistan

	Urban					Rural				
			Deviations adjusted for independents + covariates[a]					Deviations adjusted for independents + covariates[a]		
Independent variables	(N)	Unadjusted deviations	Work/non-work (Eq. 1)	Work place (Eq. 2)	Occupation (Eq. 3)	(N)	Unadjusted deviations	Work/non-work (Eq. 4)	Work place (Eq. 5)	Occupation (Eq. 6)
Husband's education										
None	329	0.07	0.06	0.06	0.05	953	-0.02	0.00	0.00	0.00
1–4 years	78	-0.12	-0.09	-0.09	-0.09	133	-0.04	-0.05	-0.05	-0.05
5+ years	462	-0.03	-0.03	-0.03	-0.02	342	0.06	0.01	0.01	0.01
Wife's education										
None	652	0.03	0.05	0.05	0.05	1,364	0.00	0.00	0.00	0.00
1–4 years	48	0.15	0.16	0.16	0.15	33	0.04	0.10	0.10	0.10
5+ years	169	-0.17	-0.24	-0.24	-0.24	31	-0.11	-0.26	-0.26	-0.26
Whether used contraception										
No	661	0.04	0.04	0.04	0.05	1,345	0.02	0.01	0.01	0.01
Yes	208	-0.13	-0.14	-0.14	-0.14	83	-0.30	-0.21	-0.21	0.20
Whether worked/working										
No	720	0.00	0.01			1,144	0.01	0.02		
Yes	149	-0.02	-0.06			284	-0.03	-0.07		

Work place									
Not working	720	0.00	0.01		1,144	0.01	0.02		
At home	105	-0.03	-0.06		119	0.03	-0.02		
Outside home	44	-0.00	-0.06		165	-0.07	-0.10		
Occupation									
Not working	720	0.00		0.01	1,144	0.01		0.02	
Professional	17	-0.15		-0.08	7	0.66		0.68	
Farmers	1	-1.68		-1.75	116	-0.04		-0.10	
Tailors/weavers	84	0.02		-0.01	103	-0.01		-0.07	
Others	47	-0.00		-0.10	58	-0.11		-0.09	
Total	869				1,428				
Grand mean	1.68				1.62				
R^2		0.160	0.160	0.163		0.153	0.153	0.156	

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[a] The covariates included for this table were wife's age, wife's age squared, and duration of breastfeeding.

Philippines, the difference in recent fertility between working and nonworking women was much larger; working women had borne 0.23 fewer children in urban areas during the five years preceding the survey (Table 10). Women working at home had borne 0.32 fewer children than nonworking women, and professionals had borne 0.36 fewer children in urban areas. (The overall mean for urban areas was 1.47 children.) The differences for the rural areas were much smaller (and statistically insignificant), working and nonworking women having almost the same numbers of children.

When we examined these results further through an analysis of interaction effects for the Philippine data, we found a strong interaction between contraceptive use and work since marriage, as well as work place within the rural areas. Interaction terms to include these variables were constructed and entered into the regressions. The results after interaction terms were included are shown in Table 10 for selected equations. Unlike before, the work variable was highly significant when its interaction with contraceptive use was taken into account (Equation 1, Table 10). What is striking is that it was the nonworking user women who had notably lower fertility than the other groups. Thus, it seems that within the rural areas of the Philippines, work participation per se has not been an important factor in reducing recent fertility.

Place of work was found to be an important factor in fertility differentials. Equation 5 of Table 11 shows that rural women who worked outside the home had significantly lower fertility than those who worked at home. This finding is supported by the equation in which the interaction term between place of work and contraception was included (Table 10, Equation 2). There seem to be three types of pattern in rural areas. First, user women who had never worked had 0.23 fewer children than the average of 1.64. Second, those who worked at home typically had more children than women who worked outside the home. Third, those who worked outside the home—both those who had used contraception and those who had not—had fewer children than those who did not work outside. This last finding suggests two types of influence that work participation outside the home might be having on recent fertility, one representing deliberate fertility control, probably by relatively high SES women, and the other resulting from factors like health and fecundability, probably among relatively low SES women. These patterns are illustrated even more

TABLE 10 MCA results after including interaction terms in selected equations: Philippines

	Dependent variable = births in last 5 years, rural areas			Dependent variable = CEB, rural areas		
Interaction variables	(N)	Unadjusted deviations	Deviations adjusted for independent and covariates	(N)	Unadjusted deviations	Deviations adjusted for independent and covariates
Contraceptive use and whether worked since marriage			Eq. 1			Eq. 3
Used but never worked	253	-0.15	-0.23	64	0.51	0.66
Used and worked	172	-0.07	-0.03	73	0.04	0.49
Not used and never worked	1,208	0.08	0.06	498	-0.04	-0.01
Not used and worked	605	-0.08	-0.01	288	-0.05	-0.25
Total	2,238			923		
Grand mean	1.64			6.76		
R^2	.258			.304		
Contraceptive use and place of work			Eq. 2			Eq. 4
Used and never worked	254	-0.15	-0.23	64	0.51	0.67
Used and worked at home	60	-0.02	0.10	31	0.43	0.97
Used and worked outside	111	-0.09	-0.09	42	-0.25	0.14
Not used and never worked	1,208	0.08	0.06	497	-0.04	-0.01
Not used and worked at home	178	0.03	0.15	93	-0.39	-0.28
Not used and worked outside	427	-0.13	-0.07	196	0.11	-0.24
Total	2,238			923		
Grand mean	1.64			6.76		
R^2	.262			.306		

NOTE: All four equations were significant at $<.01$.

TABLE 11 Multiple classification analysis of births 5 years prior to survey, by selected independent variables, urban and rural: Philippines

	Urban					Rural				
			Deviations adjusted for independents + covariates[a]					Deviations adjusted for independents + covariates[a]		
Independent variables	(N)	Unadjusted deviations	Work/non-work (Eq. 1)	Work place (Eq. 2)	Occupation (Eq. 3)	(N)	Unadjusted deviations	Work/non-work (Eq. 4)	Work place (Eq. 5)	Occupation (Eq. 6)
Husband's education										
None	16	-0.31	-0.10	-0.10	-0.12	234	-0.32	-0.07	-0.07	-0.07
1–4 years	86	0.18	0.25	0.25	0.24	790	0.01	0.02	0.02	0.02
5+ years	606	-0.02	-0.03	-0.03	-0.03	1,215	0.05	-0.00	-0.00	-0.00
Wife's education										
None	22	-0.27	-0.23	0.23	-0.21	178	-0.34	-0.14	-0.15	-0.15
1–4 years	95	0.07	0.01	0.01	0.02	794	-0.00	0.04	0.05	-0.04
5+ years	590	-0.00	0.01	0.01	0.00	1,266	0.05	-0.01	-0.01	-0.00
Whether used contraception										
No	438	0.05	0.04	0.04		1,813	0.03	0.03	0.04	-0.03
Yes	269	-0.09	-0.06	-0.07		425	-0.12	-0.15	-0.15	-0.14
Whether worked/working										
No	468	0.14	0.09			1,461	0.04	0.00		
Yes	239	-0.28	-0.18			777	-0.08	-0.01		

Work place										
Not working	468	0.14		0.09		1,462	0.04		0.00	
At home	74	-0.25		-0.23		238	0.02		0.15	
Outside home	166	-0.30		-0.16		538	-0.12		-0.07	
Occupation										
Not working	468	0.14			0.09	1,462	0.04			0.00
Professional	66	-0.47			-0.27	39	-0.22			-0.22
Sales	94	-0.28			-0.14	131	-0.15			-0.02
Farmers	7	-0.67			-0.51	392	-0.06			-0.01
Tailors/weavers	24	0.00			-0.02	115	0.07			0.10
Others	48	-0.11			-0.18	98	-0.19			-0.01
Total	707					2,239				
Grand mean	1.47					1.64				
R^2			0.298	0.298	0.301			0.255	0.259	0.257

a The covariates included for this table were wife's age, wife's age squared, and duration of breastfeeding.

sharply in the analysis of number of children ever born that follows. The relatively high fertility of women working at home (when compared with nonworking women) still remains a puzzling result.

Finally, professional Filipino women in rural areas had noticeably fewer children than nonworking women but the differences were not statistically significant (Table 11, Equation 6).

These findings indicate that the recent fertility of working women in Pakistan was not significantly different from that of nonworking women even though the fertility of the former group was somewhat lower. The recent fertility of working Filipino women was lower than that of nonworking women as was the fertility of women in professional occupations, particularly in urban areas.

Children ever born (CEB)

We have used the number of children ever born as a proxy for the completed family size of women in our sample. The work variable used as an independent variable for the MCA of CEB was whether a woman had ever worked since marriage. (Currently working women were included in the "ever worked" category.) The optimal situation would have been to use a variable measuring the duration of work over the woman's married fecund lifetime. But this was not possible because the data on duration of work were not usable. Fairly large proportions of women in Pakistan as well as in the Philippines who had ever worked since marriage were, however, currently working (90 percent and 72 percent respectively). It is therefore reasonable to assume that most of the working women had been working throughout most of their married lives.

Working women in the urban and rural areas of Pakistan had borne a smaller number of children than nonworking women. Working women had borne 0.25 fewer children than the nonworking women in urban areas, and 0.46 fewer children in the rural areas; the overall means on CEB for urban and rural areas were 7.5 and 7.3, respectively (Table 12). These differences were not statistically significant, however. Women who worked outside the home in rural areas had a notably smaller CEB (0.60 fewer children) than nonworking women.[2]

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[2] The interaction term for husband's education and wife's place of work was also entered into the regression on CEB. The interaction variable was not statistically significant in rural or urban areas. One interesting finding that emerged from this analysis, however, was that both low SES working women (women with

Women who worked outside the home in rural Pakistan were mainly farm workers, unskilled workers, and laborers, with the exception of a few professional women. Although differences were not statistically significant, the lower fertility of this group perhaps was due to certain poverty-related factors (such as poor nutrition and lower fecundability) rather than conscious fertility control. This hypothesis seems to be supported by the fertility differentials between women in different occupations. These findings should not be overemphasized, however, since none of the differences were statistically significant.

Among urban Filipino women, those who were working had borne a significantly smaller number of children than nonworking women—5.5 compared with 6.1. Similarly, urban Filipino women who were working at home had a significantly smaller number of CEB (5.1) than women working outside the home (5.6) and nonworking women (6.1). The pattern of relatively lower fertility among women working at home rather than outside is somewhat puzzling. Table 5 shows that 25 percent of all working urban Filipino women worked at home. Of these, over half (60 percent) were working as traders, seamstresses, or craft workers, all of which occupations rank as relatively low in status in Filipino society. To examine whether the unusually low fertility of these women might be related more to health and fecundability than to active fertility control, we included in the analysis an interaction term involving contraceptive use and work since marriage. Inclusion of the interaction term indicated that fertility of working women who had not used contraception was markedly lower than that of all other groups: 5.25 CEB compared with 5.79 for women who worked and used contraception. Furthermore, nonuser women who worked either at home or outside had significantly lower CEB than working user women:

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illiterate husbands) and high SES working women (whose husbands had five or more years of education) had a smaller number of CEB than nonworking women. This was true in both rural and urban areas. Working women whose husbands had less than five years of education actually had higher fertility than the nonworking women. The net addition of the interaction term to R^2 was 0.9 percent in urban and 0.5 percent in rural areas. Thus, there appears to be a curvilinear relationship between the interaction variable representing husband's education and wife's work place and fertility.

TABLE 12 Multiple classification analysis of CEB (children ever born), by selected independent variables, urban and rural: Pakistan

	Urban					Rural				
			Deviations adjusted for independents + covariates[a]					Deviations adjusted for independents + covariates[a]		
Independent variables	(N)	Unad-justed devia-tions	Work/non-work (Eq. 1)	Work place (Eq. 2)	Occu-pation (Eq. 3)	(N)	Unad-justed devia-tions	Work/non-work (Eq. 4)	Work place (Eq. 5)	Occu-pation (Eq. 6)
Husband's education										
None	106	0.46	0.14	0.14	0.13	362	-0.00	-0.04	-0.04	-0.05
1–4 years	37	0.07	0.28	0.29	0.27	49	-0.05	-0.12	-0.12	-0.13
5+ years	126	-0.41	-0.20	-0.20	0.19	83	0.04	0.26	0.26	0.29
Wife's education										
None	223	0.25	0.13	0.12	0.13	475	0.03	0.02	0.02	0.02
1–4 years	11	-0.87	-0.26	-0.25	-0.29	13	-0.51	-0.51	-0.55	-0.58
5+ years	35	-1.33	-0.72	-0.71	-0.73	6	-1.11	-0.24	-0.20	-0.20
Whether used contraception										
No	192	-0.08	-0.11	-0.11	-0.11	449	-0.03	-0.02	-0.03	-0.03
Yes	77	0.20	0.27	0.27	0.27	45	0.28	0.25	0.26	0.30
Whether worked/working										
No	223	0.06	0.04			412	0.07	0.08		
Yes	46	-0.31	-0.21			82	-0.36	-0.38		

Work place										
Not working	223	0.06		0.04		412	0.07		0.08	
At home	31	-0.02		-0.25		33	-0.15		-0.17	
Outside home	15	-0.90		-0.11		49	-0.50		-0.52	
Occupation										
Not working	223	0.06			0.04	412	0.07			0.08
Professional	6	-0.84			-0.11	3	1.06			0.71
Farmers	1	-1.50			-1.01	29	-0.90			-0.90
Tailors/weavers	26	0.15			-0.09	29	0.00			-0.05
Others	13	-0.89			-0.41	21	-0.32			-0.26
Total	269					494				
Grand mean	7.50					7.28				
R^2			0.245	0.245	0.246			0.214	0.215	0.219

a Covariates included were wife's age, duration of breastfeeding, duration of marriage, and duration of marriage squared.

Work and contraceptive status	$\bar{X}$ CEB	(N)
Used and never worked	6.40	67
Used and worked at home	5.65	6
Used and worked outside	5.82	40
Did not use and never worked	5.95	115
Did not use and worked at home	4.85	22
Did not use and worked outside	5.42	49
Overall mean	5.86	

These differences clearly show that the lower fertility of a large number of working women is not rooted in any planned behavior as evidenced by contraceptive use.

Differences by occupation in the fertility of urban Filipino women were not significant. It is noteworthy, however, that both professional and lower level working women such as sales workers had lower fertility than nonworking women (Table 13, Equation 3).

Within rural areas, working women had lower fertility than nonworking women as a group. Moreover, women who were working at home or outside had borne a smaller number of children than nonworking women (Table 13, Equations 4 and 5). Neither of these differences was large enough, however, to be statistically significant until the interaction between work (and place of work) and contraceptive use was taken into account. When this interaction term was included in the analysis both work participation and place of work appeared to be highly significant influences on fertility (Table 10, Equations 3 and 4). These equations illustrate rather clearly that the smaller number of CEB among rural working women relative to that of rural nonworking women did not result from deliberate fertility control, because the number was smaller only among women who were not using contraceptives. For example, rural women who worked at home and were not using contraception had 6.5 CEB compared with 7.7 for user women who were working at home. As we noted above, the majority of the Filipino women who worked at home were employed in relatively low SES jobs. It seems that among them, those with exceptionally high fertility made an attempt to control it by using contraception, whereas those with "naturally" lower fertility did not resort to fertility control. The lower fertility of working Filipino women than of nonworking women in rural areas thus seems to be a result of health and fecundability rather than of conscious fertility control.

Differences in the number of CEB by the occupational groupings of rural women were significant. Professional women had a much smaller number of CEB than nonworking women, 5.3 compared with 6.7. The low fertility of rural professional women probably has important policy implications, particularly if this group represents pioneers in deliberate fertility control and such women are likely to play a major role in modifying normative structures.

To summarize, working Filipino women seem to have borne fewer children than their nonworking counterparts. It is not clear, however, whether their smaller family size was motivated by a desire to control fertility or resulted from relatively poor nutrition and health, which could have adversely affected fecundability. Both professional women and women in relatively less prestigious (and less well-paying) occupations had lower fertility than the nonworking women sampled. The evidence suggests that in rural areas working women had lower fertility because of factors other than deliberate fertility control. Within urban areas, working women of higher and lower SES had lower fertility than women who did not work.

Desire for another child

Desire for another child has been found to have a significant negative influence on behavior aimed at controlling fertility in both Pakistan and the Philippines (Nasra Shah and Palmore, 1979; Palmore and Concepción, 1981). A much larger proportion of Pakistani than of Filipino women included in our MCA analysis said they wanted another child (Tables 14 and 15). Our objective in using desire for another child as a dependent variable was to examine whether any of the three work variables exerted a significant influence on respondents' desire for another child.

The initial analysis showed that in Pakistan none of the work variables exerted a significant influence on desire for another child; the differences were generally small enough not to warrant comment (Table 14). A significant interaction was present, however, between husband's education and wife's place of work. An appropriate interaction term was therefore created and entered into the analysis. It turned out to be significant at $p < .01$, for urban areas. The adjusted proportions based on the MCA analysis indicated that, in general, more women working outside the home in urban areas had no desire for another child than did nonworking women. For example, among women working outside the home, 34 percent of those with illiterate husbands

TABLE 13 Multiple classification analysis of CEB (children ever born), by selected independent variables, urban and rural: Philippines

	Urban					Rural				
			Deviations adjusted for independents + covariates[a]					Deviations adjusted for independents + covariates[a]		
Independent variables	(N)	Unadjusted deviations	Work/non-work (Eq. 1)	Work place (Eq. 2)	Occupation (Eq. 3)	(N)	Unadjusted deviations	Work/non-work (Eq. 4)	Work place (Eq. 5)	Occupation (Eq. 6)
Husband's education										
None	6	0.21	0.83	0.98	0.83	134	0.20	-0.11	-0.11	-0.12
1–4 years	45	1.09	0.61	0.62	0.52	356	0.32	0.14	0.14	0.13
5+ years	250	-0.20	-0.13	-0.13	-0.11	434	-0.32	-0.08	-0.08	-0.07
Wife's education										
None	12	-0.25	-0.74	-0.78	-0.76	95	0.04	0.01	0.01	-0.03
1–4 years	40	1.21	0.45	0.44	0.50	388	0.29	0.13	0.13	0.11
5+ years	247	-0.19	-0.04	-0.03	-0.04	442	-0.26	-0.12	-0.12	0.09
Whether used contraception										
No	187	-0.05	-0.18	-0.17	-0.18	787	-0.05	-0.11	-0.10	-0.11
Yes	114	0.09	0.30	0.28	0.30	137	0.26	0.61	0.60	0.64
Whether worked/working										
No	182	0.30	0.26			562	0.02	0.09		
Yes	118	-0.46	-0.40			362	-0.03	-0.14		

Work place										
Not working	182	0.30		0.26		562	0.02		0.09	
At home	28	-0.71		-0.76		124	-0.18		-0.04	
Outside home	90	-0.38		-0.29		238	0.05		-0.19	
Occupation										
Not working	182	0.30			0.26	562	0.02			0.09
Professional	36	-1.30			-0.56	16	-1.50			-1.47
Sales	55	-0.30			-0.45	72	0.11			-0.11
Farmers	4	1.01			0.09	174	0.27			-0.02
Tailors/weavers	6	1.77			0.86	50	-0.39			0.12
Others	18	-0.18			-0.43	51	0.46			-0.43
Total	301					924				
Grand mean	5.86					6.76				
R^2			0.304	0.306	0.309			0.304	0.304	0.310

a Covariates included were wife's age, duration of breastfeeding, duration of marriage, and duration of marriage squared.

TABLE 14 Multiple classification analysis of desire for another child, by selected independent variables, urban and rural: Pakistan

	Urban					Rural				
			Deviations adjusted for independents + covariates[a]					Deviations adjusted for independents + covariates[a]		
Independent variables	(N)	Unadjusted deviations	Work/non-work	Work place	Occupation	(N)	Unadjusted deviations	Work/non-work	Work place	Occupation
Husband's education										
None	355	0.03	0.04	0.04	0.04	1,063	-0.02	0.01	0.01	0.01
1–4 years	79	-0.07	-0.02	-0.02	-0.02	156	0.04	0.04	0.04	0.04
5+ years	533	-0.01	-0.02	-0.02	-0.03	413	0.04	-0.04	-0.04	-0.04
Wife's education										
None	708	-0.00	0.01	0.01	0.01	1,551	-0.01	-0.00	-0.00	-0.00
1–4 years	58	0.03	0.01	0.01	0.01	42	0.07	0.04	0.04	0.04
5+ years	201	0.01	-0.04	-0.04	-0.04	39	0.14	-0.00	-0.00	-0.00
Whether used contraception										
No	755	0.07	0.02	0.02	0.03	1,546	0.02	0.01	0.01	0.01
Yes	212	-0.23	-0.09	-0.09	-0.09	86	-0.38	-0.18	-0.18	-0.18
Whether worked/working										
No	825	-0.01	-0.00			1,336	-0.01	-0.01		
Yes	142	0.03	0.01			296	0.04	0.03		

Work place										
Not working	825	0.00		0.00		1,336	-0.01		-0.01	
At home	98	0.02		-0.01		129	0.08		0.05	
Outside home	44	0.02		-0.02		167	0.01		0.02	
Occupation										
Not working	825	-0.00			0.00	1,336	-0.01			-0.01
Professional	18	0.07			0.03	9	0.00			0.11
Farmers	1	0.57			0.89	118	0.02			0.03
Tailors/weavers	72	-0.06			-0.06	112	0.06			0.05
Others	50	0.09			0.02	57	0.03			0.00
Total	967					1,632				
Grand mean	0.43					0.55				
R^2			0.448	0.448	0.452			0.431	0.431	0.432

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a Covariates included were wife's age, wife's age squared, number of living children, number of living children squared, and wife's age at first marriage.

TABLE 15 Multiple classification analysis of desire for another child, by selected independent variables, urban and rural: Philippines

Independent variables	Urban (N)	Urban Unadjusted deviations	Urban Deviations adjusted for independents + covariates[a] Work/non-work	Urban Deviations adjusted for independents + covariates[a] Work place	Urban Deviations adjusted for independents + covariates[a] Occupation	Rural (N)	Rural Unadjusted deviations	Rural Deviations adjusted for independents + covariates[a] Work/non-work	Rural Deviations adjusted for independents + covariates[a] Work place	Rural Deviations adjusted for independents + covariates[a] Occupation
Husband's education										
None	25	-0.17	-0.09	-0.08	-0.06	233	-0.09	-0.02	-0.02	-0.02
1–4 years	118	-0.11	0.00	0.00	0.01	892	-0.03	0.00	-0.00	0.00
5+ years	962	0.02	0.00	0.00	0.00	1,516	0.03	0.00	0.00	0.00
Wife's education										
None	23	-0.22	-0.00	-0.00	-0.03	182	-0.05	0.03	0.03	0.03
1–4 years	132	-0.11	0.01	0.01	0.02	893	-0.06	-0.02	-0.02	-0.03
5+ years	950	0.02	-0.00	0.00	-0.00	1,567	0.04	0.01	0.01	0.01
Whether used contraception										
No	724	0.01	0.00	0.00	0.00	2,198	0.01	0.01	0.01	0.01
Yes	381	-0.02	-0.00	-0.00	-0.01	444	-0.05	-0.06	-0.06	-0.06
Whether worked/working										
No	778	-0.00	-0.01			1,987	-0.00	-0.02		
Yes	326	0.01	0.02			655	0.01	0.05		

Work place										
Not working	778	-0.00		-0.01		1,987	-0.00		-0.02	
At home	89	-0.07		0.00		205	-0.04		0.02	
Outside home	237	0.04		0.02		449	0.03		0.06	
Occupation										
Not working	778	-0.00			-0.01	1,987	-0.00			-0.02
Professional	127	0.17			0.07	64	0.30			0.21
Sales	123	-0.09			0.00	118	0.08			-0.01
Farmers	8	0.00			0.20	312	-0.01			0.05
Tailors/weavers	20	-0.08			-0.09	90	0.03			0.02
Others	48	-0.14			-0.08	70	-0.04			0.03
Total	1,105					2,642				
Grand mean	0.34					0.33				
R^2			0.376	0.376	0.381			0.353	0.353	0.356

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[a] Covariates included were wife's age, wife's age squared, number of living children, number of living children squared, and wife's age at first marriage.

and only 17 percent of those whose husbands had less than five years of education wanted another child, compared with 46 percent of nonworking women with illiterate husbands. Among women who worked at home, on the other hand, larger proportions expressed a desire for another child than did nonworking women except for the subgroup of women whose husbands had higher education (5 or more years). Somewhat surprisingly, half (50 percent) of the women whose husbands had five or more years of education and who worked outside the home wanted another child, compared with 41 percent of the nonworking women with a similar level of husband's education. Thus, the demand for another child varied significantly by place of work and husband's education, but the pattern was not consistent for either variable.

In the Philippines, none of the three work variables had a significant effect on desire for another child among urban respondents (Table 15). Among rural Filipino respondents, however, significantly more working than nonworking women expressed desire for another child. This finding is surprising at first glance but seems to be consistent with some of the other characteristics of rural working women discussed above. We know from the analysis of the interaction between work participation and contraceptive use that working women in rural areas bore fewer children than nonworking women, not because of contraceptive use but because of other factors over which they probably had little control. We have also shown that a fairly large proportion of rural working women belonged to the relatively low SES groups who would be likely to idealize a relatively large family size. Given their actually lower fertility, it makes sense for more of them than of nonworking rural women to have desired another child.

A more puzzling finding is the significantly larger proportion of rural professional women than of nonworking women who expressed the desire for another child (54 percent compared with 31 percent). It should be recalled from Table 13 that rural professional women had significantly lower fertility than nonworking women–5.29 compared with 6.85. Possibly their desire for another child was rooted in their lower actual fertility. We also found the demand for another child to be more prevalent among working women with relatively higher education than among nonworking women when we entered an interaction term consisting of wife's education and work participation into the analysis. (The interaction between wife's education and work participation was significant in rural areas and an appropriate interaction term was therefore included in the analysis.) Forty one percent of the rural working women with five or more years of education said they wanted another child, compared with 31 percent of the nonworking women with the same level of education. Thus, it does seem that demand for additional children was more widespread among professional women and working women with five or more years of education than among other respondents, the reasons for which need to be investigated further.

SUMMARY AND CONCLUSIONS

The objective of this study was to analyze the effect of the work participation of women on their recent fertility, number of children ever born, and desired fertility in Pakistan and the Philippines. Three measures of work participation were used: work participation versus nonparticipation, place of work (at home or outside), and type of occupation. We analyzed the data by means of multiple classification analysis and controlled appropriate background variables before examining the effect of work participation on fertility.

An analysis of the occupational structure of the female labor force in the two countries showed notable differences between them. Working women in Pakistan were highly concentrated in two or three traditional occupations whereas the occupational structure of the Filipino women was more diverse. Many more of the Pakistani women were self-employed and worked at home than the Filipino women. In the urban areas of Pakistan, the working women were typically less educated than the nonworking women; in urban areas of the Philippines, working women were more educated than their nonworking counterparts. Our comparison of working and nonworking women in the two countries led us to hypothesize that the Filipino occupational structure seemed much more likely to have a negative influence on fertility than the Pakistani structure.

Multivariate analysis supported our assumption for Pakistan and for many of the Philippine data. The differences between the fertility of working and nonworking women were not statistically significant in Pakistan. Working Filipino women had significantly lower recent fertility as well as number of children ever born. Professional women in urban areas had significantly lower recent fertility than the nonworking women. Similarly, professional women in rural areas had a significantly lower number of children ever born than the nonworking women.

A closer examination of the negative relationship between work participation and fertility in the Philippine sample included study of the interaction between various independent variables. An analysis of the strong interaction between work participation (and workplace) and contraceptive use in the rural areas showed that recent fertility was significantly lower among user women who had never worked and among two groups of working women, user and nonuser women who worked outside the home, than among other women. Thus, recent fertility of working rural Filipino women seems to have been lower among those who consciously attempted to control their fertility and also those who had not taken any steps (contraceptive use) to prevent births; the latter group was numerically about four times larger than the former group.

With regard to completed fertility (children ever born, or CEB) among Filipino women aged 35 or more, the group with significantly lower fertility consisted of nonuser working women in both urban and rural areas. Furthermore, nonuser women, who worked either at home or outside, had significantly lower fertility than most other groups. Thus, there seems to be rather clear evidence in the Philippine data that the lower fertility of working women did not necessarily result from actions designed to curb fertility. Rather, lower fertility seemed most prevalent among relatively low-SES, less fecund women with the exception of a small subgroup of working women who had made a deliberate attempt at controlling their fertility.

Desire for another child was not significantly related to work participation in the urban Philippines. In rural areas a larger proportion of working than of nonworking women expressed the desire for another child, contrary to our expectation. Given the actual lower fertility of working women, which appeared in most cases to result from unplanned factors, it is perhaps not surprising that more of them wanted another child. A finding less easy to explain is that more of the professional and better educated rural women wanted another child than did other rural women.

The lack of significant results for Pakistan is consistent with earlier studies. Fewer Pakistani women (about 18 percent) perceived themselves as having entered the labor force than Filipino women (27 percent). About two-thirds of the urban Pakistani women worked at home and 61 percent of the working women were self-employed. Almost two-thirds of the urban women were engaged in crafts occupations such as sewing and embroidering, whereas only 9 percent could be classified as professionals.

A majority of the Pakistani women who enter the labor force do so because of poverty and are in occupations that are, if anything, status-reducing rather than status-enhancing. Thus, analytic frameworks that posit incompatibility between the mother and worker roles or an alternative role identity derived from work that leads to lower fertility do not apply to a large majority of Pakistani women. A more plausible hypothesis is that lower fertility, when it has occurred, results from noncontraceptive factors (such as lower fecundity), as was the case for many Filipino women. Perhaps we will see such a pattern more clearly in the future as the differences between working and nonworking Pakistani women become sharper with overall economic development.

Future research on this subject might usefully focus on three areas. First, there is a need for much better conceptualization and measurement of the nature of work roles. This is true for all workers and for all kinds of work, but it is especially true for women and the typical women's occupations—where work settings, career sequences, educational and skill requirements, and other aspects of the work milieu involve unmeasured dimensions that may well be significant for childbearing decisions. Second, it would be valuable to shift analysis to the level of households in order to capture female labor supply as a volatile and therefore important aspect of family labor supply. The tradeoffs between a wife's use of time for market labor, economic activity at home, childbearing, and childrearing will become more explicit in a household context. Lastly, it will ultimately be necessary to develop methods and data for a genuinely dynamic analysis of work-fertility sequences within marital careers. Appropriate methods and data are just beginning to be developed.

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Korean immigration to the United States: its demographic pattern and social implications for both societies

Hagen Koo
and Eui-Young Yu

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Honolulu, Hawaii

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PREFACE

This paper was prepared while the first author was a Research Fellow at the East-West Population Institute. He is grateful for the research opportunity provided by the Institute. An earlier version of this paper was presented at the annual meetings of the American Sociological Association in New York, 27–30 August 1980. We would like to thank James T. Fawcett, Chan-Shik Choi, Delos Kelly, and two anonymous reviewers for their helpful suggestions on the earlier version. We especially appreciate the excellent editing of our manuscript by Sandra Ward, the editor of this Paper Series.

ABSTRACT Drawing on immigration statistics and secondary survey data, this paper attempts to delineate dominant patterns of post-1965 Korean immigration to the United States, to analyze its effects on both societies, and in the process to evaluate the world economic system approach to international migration. Recent Korean immigrants have been characterized by high educational and occupational backgrounds, a high proportion of men and women in their economically and biologically productive ages, an overrepresentation of women and children, a relatively more dispersed settlement pattern upon arrival than other immigrant groups, and concentration in small businesses especially in Black ghettos and other racially mixed areas of major American cities.

Korean immigrants are not, in the main, part of the marginal population that is displaced by the modernization process but are likely to come from the modernized sectors of the society with strong mobility orientation to improve their own and their children's lots. The predominant occupational mobility pattern among Korean immigrants is from professional or white-collar jobs in Korea to small independent businesses in the States. Although they do provide cheap labor for many peripheral industries in America, their more important function for the advanced capitalism, it is argued here, is to fill the gaps and provide flexibility in the labor market rather than directly to provide exploited labor for marginal industries. The role of immigrant labor in the advanced capitalistic economy seems to vary according to the stage and character of the sending economy. Korean emigration causes a serious brain drain problem for Korea; on the other hand, Korean society benefits from emigration through the reduction of population pressure, the receipt of substantial remittances from the emigrants, the return of U.S.-trained professionals, and penetration of the U.S. consumer market through Korean business networks. As the world economic system perspective would suggest, it is argued that Korean migration to the United States cannot be adequately understood on the individual level without looking into the ways in which the two societies are linked within the single world economic system. Whereas world system theorists are concerned primarily with the economic nature of center-periphery relations in the capitalist system and certain imperatives of the monopoly capitalism, this paper stresses the

political and military aspects of such relationships as underlying causes of Korean migration to the United States.

Korean immigration to the United States has come in two waves. The first started in 1903 when 102 laborers arrived in Hawaii to work on the sugar plantations. This immigration flow was cut off in 1905 by the passage of successive anti-Asian immigration legislation in the United States and under pressure of the Japanese government in Korea to curtail further Korean emigration to Hawaii. In this first short period, 7,226 Koreans are known to have arrived in Hawaii; 983 of them later returned to Korea. More Korean immigrants arrived after 1905, primarily as wives of resident immigrants, but they numbered fewer than 2,000.

The second wave of Korean immigration was brought about by changes in U.S. immigration laws in 1965. The 1965 Immigration Act abolished discriminatory quotas based on national origin and eased immigration through family relationships and skilled or professional job qualifications. Such changes produced a sharp increase of immigrants from Asia. The Korean proportion of Asian immigration has gradually risen to the point where Koreans now comprise over one-fifth of all immigrants from Asia. By 1975 they had become the third largest group entering the United States, trailing only Mexicans and Filipinos. The number of Korean immigrants admitted to this country has exceeded 30,000 every year since 1976.

Although these two migratory streams share many common elements, they are different from each other in both the social and economic contexts in which they occurred and the social characteristics and the adaptation patterns of the immigrants. In this paper, we focus primarily on recent Korean immigration to the United States. Our purpose is threefold: (1) to delineate, through the use of existing materials, the dominant patterns of Korean immigration, (2) to analyze its effects on both Korean and American societies, and (3) in the process to evaluate critically the world economic system approach to international migration.

DEMOGRAPHIC CHARACTERISTICS OF IMMIGRANTS

Prior to the adoption of the 1965 Immigration Act, immigration from Asian countries had been sharply curtailed by the Immigration Act of

1924 and the 1952 McCarran-Walter Act. Both of these Acts continued the Oriental exclusion policy which had been made explicit in earlier regulations. The specific policy changes introduced in the 1965 Act are discussed in detail elsewhere (Keely, 1971; Boyd, 1974). Of particular relevance to our purpose is the fact that immigration from Asia is now largely determined by the interaction of three factors: (1) the limit of 20,000 visas per country per year (exclusive of visas for spouses, children, or parents of U.S. citizens, (2) the number of relatives already residing in the United States as U.S. citizens or permanent residents, and (3) the skill levels of would-be immigrants (Boyd, 1974). Of course, these factors are relevant only when there are more people in a sending country who want to emigrate than the accepting country wants to admit. In the Republic of Korea, there have always been more than 20,000 people per year waiting for the U.S. visas.

Because of the relatively small number of Koreans in the United States before 1965, Korean immigrants could not use family networks as much as the Chinese or Japanese. Yu (1977) estimated the total number of Koreans in the United States in 1950 at around 17,300. Between 1950 (the year when the Korean War broke out) and 1960, 6,231 Korean immigrants were reportedly admitted to the United States. Most of these were war orphans, students, and Korean brides who had married American soldiers. Between 1961 and 1964, another 7,796 Koreans entered the United States with immigrant visas. Throughout that period, Korean immigrants were primarily women and children; the sex ratio was 29 males to 100 females. It seems clear that their immigration was closely related to the American troops' participation in the Korean War.

The volume and the pattern of Korean immigration began to change drastically after 1965, although the full effect of the new immigration policy did not begin to show until after the transition period that phased in major policy changes ended in 1968. The yearly volume of Korean immigration increased from 2,165 in 1965 to 9,314 in 1970, and again to 30,917 in 1977 (Table 1). The yearly total has probably exceeded 31,000 since 1977 owing to an increase of immigrants exempt from the 20,000 ceiling on visas.

Consequently, the number of Koreans in America has multiplied. It has been estimated that the number of Koreans in the United States was 113,000 in 1970, 290,000 in 1976 (Yu, 1977), and 400,000 as of March 1979 (Yu, 1979a). Assuming an annual natural increase rate of

TABLE 1 Korean and total immigration to the United States: fiscal years 1965–77

Year	Korean	Total	Percentage Korean
1965	2,165	296,697	0.7
1966	2,492	323,040	0.8
1967	3,956	361,972	1.1
1968	3,811	454,448	0.8
1969	6,045	358,579	1.7
1970	9,314	373,326	2.5
1971	14,297	370,478	3.9
1972	18,876	384,685	4.9
1973	22,930	400,063	5.7
1974	28,028	394,861	7.1
1975	28,362	386,194	7.3
1976	30,803	398,615	7.7
1976 (July–September)	6,887	103,676	6.6
1977	30,917	462,315	6.7

SOURCE: U.S. Immigration and Naturalization Service (1974 and 1978: table 14).

3 percent and an annual volume of 31,000 immigrants, we can estimate the total number of Koreans in the United States at about 460,000 as of August 1980.

One distinct characteristic of the Korean immigrants to the United States since World War II has been an overrepresentation of women and children. For every 100 females, only 48 males were admitted during 1970, 63 males during 1973, and 64 males during 1977. In the 20–29 age group, the sex ratios (number of males per 100 females) were 23 during 1970, 32 during 1973, and 36 during 1977. Previously, the immigration of Korean women married to American servicemen contributed to the extreme sex imbalance in this age group, but currently this imbalance seems to be caused largely by the immigration of women married to Korean-Americans.

Another immigrant group showing an unusual sex-ratio imbalance is Korean children under age 5 (Table 2). The sex ratio for this group was 67 during 1973 and 64 during 1977. For immigrants from all origins admitted during those two years, the corresponding sex ratios were 97 and 96 respectively. We speculate that two factors may account for this anomaly among the Korean immigrants. One factor is the traditional

TABLE 2 Age distribution and sex ratio of Korean and total immigrants admitted: fiscal years 1973 and 1977

	Age distribution (%)				Sex ratio			
	1973		1977		1973		1977	
Age group	Korean	Total	Korean	Total	Korean	Total	Korean	Total
0–4	16.6	8.2	17.2	6.2	66.6	96.6	63.8	95.7
5–9	9.2	8.8	10.1	6.9	94.5	102.0	99.5	104.8
10–19	13.6	18.9	15.3	18.2	77.2	93.0	83.2	98.4
20–29	29.4	30.0	28.8	27.5	32.0	76.9	36.3	82.4
30–39	20.3	16.4	15.2	17.2	93.7	100.7	83.2	96.7
40–49	5.8	8.1	6.4	9.4	108.9	89.3	105.5	88.7
50–59	3.1	4.9	3.3	6.7	64.0	70.0	72.1	72.7
60–69	1.9	3.4	2.8	5.1	45.2	68.0	51.9	63.9
70–79	0.4	1.2	0.8	2.3	35.2	64.8	51.2	67.4
80 and over	0.1	0.3	0.1	0.6	27.3	59.1	50.0	63.2
All age groups	99.9	100.0	100.0	100.0	62.9	87.2	64.4	88.0
(Number)	(22,930)	(400,063)	(30,917)	(462,315)				

SOURCE: U.S. Immigration and Naturalization Service (1974 and 1978: table 9).

Korean preference for sons, which may make the parents more willing to give away their girls for adoption. Another is that American families may prefer girls to boys when adopting Korean children.

Another distinct feature of Korean immigrants is the relatively high proportion of children. Children under age 5 constituted about 17 percent of the total Korean immigrants admitted during 1973, and this percentage remained the same in 1977. In contrast, the corresponding percentage for all immigrant groups was 8 during 1973 and 6 during 1977. For the U.S. population, children under age 5 constituted 7 percent of the population in 1976 (U.S. Department of Commerce, 1977: 25). By comparison, children in Korea under age 5 constituted 13.2 percent of the total population in 1975 (1975 Korean Census). The relatively high birth rate of the Korean population, the age structure of the Korean immigrants, and the large number of Korean children adopted by American families all contributed to the high proportion of children among Korean immigrants. Between 1955 and 1974, Holt International Children's Service placed 16,000 Korean orphans in adoptive homes abroad (*Korea Week*, 1975:4). A great majority of these children were placed in American homes.

Like other nationalities, Koreans in the economically active and biologically reproductive ages are overrepresented among immigrants to the United States. In particular, persons between ages 20 and 39 constituted 49.4 percent of the Korean immigrants admitted during 1973 and 44.0 percent in 1977. In comparison, the corresponding percentages for all immigrant groups were 46.4 percent in 1973 and 44.7 percent in 1977. On the other hand, elderly persons are extremely underrepresented among the Korean immigrants. Koreans 50 or more years old constituted only 3 percent of those admitted during 1970, 7 percent during 1973, and 7 percent in 1977. For all immigrants admitted, the proportions were 14.7 percent during 1973 and 9.6 percent during 1977. Whereas persons in the 50 and over age group constituted 25.6 percent of the U.S. population in 1976, they made up only 12 percent of the Korean population in Korea in 1975, owing to Korea's young age structure.

California and New York are the two most favored states of destination for immigrants, including the Koreans. In 1973, 22 percent of the Korean immigrants intended to settle in California, and 11 percent intended to settle in New York. In 1977, California's share increased to 24 percent and New York's decreased to 8 percent. New York accepted 23 percent of all immigrants during 1973 and 19 percent during 1977. California drew 21 percent of all immigrants in 1973 and also in 1977. In other words, about one-third of immigrating Koreans settled in California and New York (with about 3 to 1 favoring California) and about 40 percent of all immigrants settled in the two states (with each receiving about the same number).

Koreans tend to disperse over wider geographic areas than other immigrant groups do. The immigration statistics for 1977 indicate that about 65 percent of all U.S. immigrants settle in five states: 21 percent in California, 19 percent in New York, 12 percent in Florida, 7 percent in New Jersey, and 5 percent in Illinois. In contrast, the proportion of Korean immigrants in the five largest states of destination in 1977 was less than 50 percent (24 percent in California, 8 percent in New York, 7 percent in Illinois, 5 percent in Hawaii, and 4 percent in Texas).

Contrary to the prevailing notion, the percentages of Korean immigrants settling in major cities are relatively small when compared with those of other immigrant groups. Four cities, however, do seem to draw a substantial proportion of the Korean immigrants. In 1977, they attracted about 20 percent of the Korean immigrants admitted that year: Los Angeles, 7 percent; New York, 6 percent; Chicago, 4 percent; and Honolulu, 3 percent. This pattern is noticeably different from that of other immigrants. For the same year, New York City alone drew 17 percent of the total immigrants. It was followed by Miami, 8 percent; Los Angeles, 5 percent; and Chicago, 3 percent. These four cities thus drew 33 percent of the total immigrants admitted.

Within cities, Korean newcomers tend to concentrate in areas of racial transition. For example, in Los Angeles, about 36 percent of the county's Koreans are concentrated in an area composed of six zip (postal) codes. This area was almost exclusively occupied by working-class whites until the mid-1960s, but has since been divided into racially mixed neighborhoods composed of Blacks, Chicanos, Southeast Asians, working-class whites, and Koreans. For incoming Korean immigrants, the area appears to serve as a launching station; most who settle there tend not to remain for very long. A telephone directory analysis indicates that about 89 percent of the Koreans living there in 1972 had left the area by 1977 (Yu, 1979a).

The pattern of Korean immigration with respect to preference categories has changed noticeably over the years. During the 1966–68 period, persons admitted under the occupational preference categories (the third and the sixth preferences with their spouses and children) constituted 73 percent of the total Korean immigrants. But they comprised only 25 percent during 1969–72, 12 percent in 1973, and 9 percent in 1977. About 91 percent of Koreans admitted in 1977 were either relatives of U.S. citizens or permanent residents; those who were admitted under the third, sixth, and nonpreference categories comprised only 4 percent (Table 3). Currently, the majority of Korean immigrants are close relatives of Koreans who already reside in the United States.

Koreans are one of the most highly educated ethnic groups in the United States. According to 1970 U.S. Census data, the percentages of persons 25 years of age and over who had completed at least four years of college were: Koreans, 36.3; Chinese, 25.6; Filipinos, 22.5; Japanese, 15.9; Whites, 11.6; and Blacks, 4.5. Subsequent surveys have also documented the high educational level of Koreans. The 1973 Asian-American Field Study conducted in the Korea Town area of Los Angeles reported that 61 percent of the 358 sampled Koreans 25 years of age and over had completed at least four years of college (U.S. Department of Health, Education, and Welfare, 1974). A 1978 telephone survey in Los Angeles indicated that 71.1 percent of the Korean household heads and 64.7 percent of their spouses had completed at least four years of college (Yu, 1979b). This same survey also revealed that 10 percent of the Korean household heads and 3 percent of their spouses held an M.A., M.S., or a Ph.D. degree. A 1978 survey of 116 Korean blue-collar workers in Chicago indicated that 40 percent of the female and 58 percent of the male respondents had completed their college education prior to immigration to the United States (Hurh and Kim, 1979). A nationwide mail survey of Koreans in the United States conducted in the summer of 1979 found that 66.5 percent of the respondents had received a college education (*Joong-Ang Daily News*, 1979).

The majority of recent Korean immigrants came from backgrounds of relatively high occupational status. Among those who came in 1970 and who reported their previous occupations before immigration, 68 percent had held professional and technical jobs in the Republic of Korea. The overall occupational level of the Korean immigrants has declined noticeably in more recent years; professional and technical workers comprised 50 percent of the Korean workers admitted in

TABLE 3 Korean and total immigrants admitted, by preference category: fiscal years 1973 and 1977

Preference category	1973 Korean	(%)	Total	(%)	1977 Korean	(%)	Total	(%)
Occupational preference	2,683	(11.8)	26,767	(9.6)	2,613	(8.6)	23,585	(5.1)
Third (persons in professions)	654	(2.9)	8,521	(3.0)	1,054	(3.5)	6,554	(1.4)
Sixth (other workers in needed occupations)	440	(2.0)	4,549	(1.6)	152	(0.5)	4,673	(1.0)
Their spouses and children	1,589	(7.0)	13,697	(4.9)	1,407	(4.6)	12,358	(2.7)
Seventh (certain refugees)	0	(0.0)	9,808	(3.5)	1	(0.0)	9,575	(2.1)
Nonpreference (private bill, investment, and other cases)	4,708	(20.7)	34,479	(12.3)	33	(0.1)	112,556	(24.3)
Relative preferences	8,312	(36.6)	92,054	(32.8)	17,218	(56.6)	130,784	(28.3)
Immigrants exempt from numerical limitations (spouses and children of U.S. citizens)	7,014	(30.9)	117,152	(41.8)	10,570	(34.7)	185,815	(40.2)
All categories	22,717	(100.0)	280,260[a]	(100.0)	30,435	(100.0)	462,315	(100.0)

[a] Not including immigrants from the Western Hemisphere.

SOURCE: See tables 2, 6, and 7 of U.S. Immigration and Naturalization Service (1974 and 1978).

1973, 40 percent in 1976, and 35 percent in 1977. But still a substantially higher proportion of Korean immigrants have backgrounds of high occupational status than do other immigrants (Table 4). Although the proportion of Korean workers in the professional category has declined, the share in clerical and operative categories has increased substantially. Among the Korean workers admitted in 1973, clerical workers constituted 6 percent and operatives 4 percent. These percentages increased to 12 and 16 respectively in 1977. This downward trend in occupational ranking is expected to continue, as the relatives of the Koreans already in the United States remain the predominant source of immigration.

TABLE 4 Percentage distribution of Korean and total immigrants admitted to the United States, by occupation: fiscal years 1973 and 1977

	1973		1977	
Occupation	Korean	Total	Korean	Total
Professional, technical, and kindred	49.5	26.3	35.2	23.8
Managers and administrators	15.1	5.9	14.4	9.2
Sales	1.1	1.7	3.1	3.0
Clerical	6.1	8.4	12.1	10.7
Crafts	12.9	12.2	11.7	11.3
Operatives	4.3	13.6	12.6	18.3
Laborers	1.0	11.7	1.5	6.5
Farmers	0.0	0.1	0.2	0.3
Farm laborers	1.4	4.0	2.6	3.6
Service	6.4	10.5	6.0	8.9
Private household service	2.1	5.6	0.6	4.5
All occupations reported	99.9	100.0	100.0	100.0
(Number)	(5,879)	(156,477)	(7,881)	(189,378)

SOURCE: U.S. Immigration and Naturalization Service (1974 and 1978: table 8).

MOTIVES FOR IMMIGRATION AND ECONOMIC ADAPTATION

A basic question in any migration study is why people choose to uproot themselves from a familiar place and move to a strange and often unwelcome place. Data addressing this question regarding Koreans are scanty and unsystematic. Furthermore, even the available data are concerned mainly with only the expressed reasons for emigration or immigration. When we examine the reasons for migration, however, it is necessary initially to distinguish between the *surface* reasons that are perceived and articulated by the individuals, and the *structural* reasons that are at the root of the surface reasons; the latter are not necessarily perceived by the individuals. Later in this paper we will address this latter concern. For the present, we will examine data dealing with the dominant motives offered by Korean emigrants.

One structured survey conducted in the Republic of Korea in 1978 with 510 prospective emigrants who were in the process of emigration at the time revealed that three reasons for emigration were most frequently mentioned: (1) economic reasons, (2) educational opportunities for children, and (3) family union (Hong and Kim, 1979). The three reasons were mentioned with more or less equal frequencies. Another study conducted in the United States with 152 Korean businessmen in the Los Angeles area (Bonacich and Light, 1981) confirmed that economic reasons (e.g., "for a better life") were by far the most frequently mentioned (by about 42 percent), whereas the next in frequency of mention was a concern for children's education (20 percent), political reasons—lack of human rights, fear of another war, etc.—(13 percent), and family reunion (12 percent). A study in Chicago also stressed educational reasons as well as economic reasons (Kim and Condon, 1975). Judging from these data and our own personal observations, it seems clear that Korean immigration to the United States is predominantly a social mobility-oriented movement.

How successful have Koreans been in achieving their goal in the "land of opportunities"? This is a difficult question to answer, primarily because social mobility is not simply a matter of moving up or down a single occupational hierarchy. Before attempting to answer the question, it is essential to examine the occupational activities of Korean immigrants. Two patterns stand out. One is that Korean immigrants work very hard; the other is that many work in small businesses.

That Korean immigrants work hard is evidenced by their high labor force participation rate and the large number of hours they work per day. Yu's 1978 telephone survey of 180 Koreans in Los Angeles revealed that 98 percent of the Korean household heads and 63 percent of their spouses were employed full-time (Yu, 1979b). This survey also indicated that almost a half of the respondents worked more than nine hours a day, about 20 percent worked more than 10 hours, and about 25 percent worked during the evening and night hours. Nearly half of them worked on the weekends.

The same survey disclosed that 40 percent of household heads and 36 percent of their spouses in Los Angeles were proprietors of some type of small business. Using a different method (counting the number of Korean-owned enterprises in Los Angeles County and dividing it by the number of Korean households), Bonacich et al. (1980) estimated that about one quarter of all Korean households in the Los Angeles area were in business for themselves. Why do so many Koreans move into small business, especially when the economy appears to be moving in the opposite direction? Bonacich et al. offer three major "immediate reasons": (1) the lack of alternative occupational choices; (2) the desire to obtain high income levels (it guarantees work opportunities for all able members of the family and enables them to work overtime in the evenings and on weekends); and (3) that investment in a small business was used by many Koreans as a means to obtain permanent resident visas. By and large, many Korean immigrants view small entrepreneurship as a major avenue of social mobility, especially when upward mobility is blocked in the organized sector. It is noteworthy, as Bonacich et al. (1980:179) observed, that Koreans "have bought the 'American dream' while, paradoxically, most Americans have given up on it."

The specific types of small business that Koreans enter tend to be of the trade and services varieties. They are most likely to be hamburger shops, corner grocery or fruit and vegetable stores, wig shops, liquor stores, gas stations, shoe repair shops, and the like. Recently some Korean garment factories have emerged, but the majority of Korean businesses are still small. A 1972 Census Bureau study of business activities in the United States found that of the 1,201 Korean businesses recorded (obviously an undercount), only 21 percent had any paid employees, 61 percent had one to four employees, and about 19 percent had more than five workers. It is evident that Korean businesses are characterized by labor-intensive activities with low capital investment.

Another important feature of Korean businesses is that they tend to be located in the downtown or business districts, particularly in the Black ghettos, Spanish-speaking barrios, and racially mixed zones of the city. In this sense, Koreans seem to perform the role of "middleman minority," filling the gaps left by monopoly capital (Bonacich et al., 1980). This last point suggests some larger structural reasons as to why there are so many Korean (and other Asian minority) small businesses in the United States.

As Bonacich et al. have observed, "Entrepreneurship is not something they [Korean immigrants] fall into 'naturally' or out of habit, but must be acquired on arrival" (1980:174). They argue that two aspects of monopoly capitalism are responsible for pushing Koreans into small business. One is that large corporations, given their emphasis on efficiency and profitability, leave gaps in the economy. For example, the ghettos and barrios, with their attendant high crime rates and credit problems, may be deserted by the corporations for more profitable locations, thus leaving the poorer areas to those immigrants who are willing to accept the reduced profit margins and higher crime risk. Another factor is that the immigrants themselves create small business niches that monopoly capital finds exploitable. This situation seems to apply to the garment industry subcontracting and maintenance companies–situations in which Korean entrepreneurs often help the corporations to exploit cheap immigrant labor.

At this point, we can broaden our focus a bit by examining the entire occupational distribution exhibited by Korean immigrants. The data from Yu's 1978 Los Angeles sample survey (1979b), presented in Table 5, indicate that for household heads the largest category next to proprietors (who constituted 40 percent) was professionals (25 percent). Manual workers (both skilled and unskilled) comprised about 25 percent of the household heads. This occupational distribution represents remarkable downward mobility compared with the

TABLE 5 Percentage distribution of Korean household heads and their spouses, by occupation: Los Angeles and Orange Counties, 1978

	Heads		Spouses	
Occupation	Number	Percentage	Number	Percentage
Professional	38	24.8	12	12.4
Proprietor	61	39.9	33	34.0
Clerical	15	9.8	13	13.4
Skilled worker	19	12.4	5	5.2
Unskilled labor	20	13.1	33	34.0
Sewing	0	0.0	21	21.6
Other	20	13.1	13	13.4
All occupations	153	100.0	97	100.0

SOURCE: Yu (1979b).

distribution of the immigrants' occupations held in Korea. Of those who had held jobs there, approximately 58 percent had worked in professional occupations, whereas only 8 percent had been employed in manual occupations.

Examining the immigrants' occupational mobility pattern more closely, we see that the predominant pattern involves professional men who become small businessmen. According to Yu's 1978 Los Angeles study, about one-third of Korean men who experienced occupational mobility conformed to this pattern. The mobility pattern among Korean women, however, was noticeably different. In Los Angeles, the largest category of women comprised those employed in semi- or unskilled jobs, primarily as sewing workers in small garment factories. Another large category was in small business (34 percent). By contrast, over three-quarters of the immigrant women who had held jobs in Korea were either professional or clerical workers and none of them was an unskilled manual laborer. More than half of those women doing sewing work in Los Angeles had not held jobs in Korea (Yu, 1979b).

The general situation for Korean immigrant women in the United States is that they now have to work and thus contribute to the family income, and the most likely options open to them appear to be jobs in the local garment sweat shops or helping their husbands to operate small shops. It is perhaps remarkable that more than half of Korean working women work on weekends, and more than three-quarters of them do so while looking after their dependent children.

The occupational patterns described above, however, refer mainly to recent immigrants, as more than half of the 1978 Los Angeles sample had resided for less than four years in the United States. There are indications that after a short period of downward mobility, many Korean immigrants move up the occupational ladder by starting a business of their own. Some may obtain a professional license or credential. Among the Koreans who became naturalized U.S. citizens, 36 percent of those who worked were professional and managerial workers in 1970; the corresponding figure in 1977 was 54 percent (see Table 6).

Job satisfaction may be another important indicator of economic adjustment. The 1978 Los Angeles study showed that workers' satisfaction with their work is closely related to their educational levels, occupational standing, and the length of stay in the United States. As can be expected, job dissatisfaction is strong among those who have

TABLE 6 Percentage distribution of Korean and total employed persons naturalized as U.S. citizens, by occupation: fiscal years 1973 and 1977

Occupation	1973 Korean	1973 Total	1977 Korean	1977 Total
Professional, technical, and kindred	42.2	22.6	42.5	26.3
Managers and administrators	6.8	7.2	11.8	8.6
Sales	2.1	4.2	2.3	3.7
Clerical	10.4	14.4	7.0	14.4
Crafts	3.0	12.1	13.1	14.1
Operatives	11.3	15.1	9.9	14.6
Laborers	2.4	5.4	2.2	4.5
Farmers	0.0	0.1	0.1	0.1
Farm laborers	0.0	0.4	0.2	0.4
Service	20.9	17.2	10.7	12.5
Private household workers	0.8	1.2	0.3	0.8
All occupations reported	100.0	100.0	100.0	100.0
(Number)	(1,190)	(76,246)	(4,862)	(101,462)

SOURCE: U.S. Immigration and Naturalization Service (1974 and 1978: table 40).

recently arrived and are still in the process of adjusting. The degree of job satisfaction appears to improve as individuals move into the profession they have prepared for, or as they begin a business of their own.

THE WORLD ECONOMIC SYSTEM APPROACH

It may be true that all voluntary migration represents the desire of an individual to obtain a better life. But migration is not simply an individual matter. Behind each individually determined movement there always exist some deeper structural conditions that influence the size and the pattern of the whole migratory stream; these, in turn, exert a definite influence on both the sending and the receiving societies. Most studies of migration have been concerned with individuals' motivations and their adaptations and have thus neglected to give adequate attention to these broader, structural questions. This neglect appears to be due largely to the earlier theoretical orientation, which viewed migration primarily as an individualistically-motivated phenomenon that arises when there is need to restore equilibrium between spatial units. According to that view, the resultant migration decreases the population pressure in low-growth areas and provides for the labor needs of the growing regions, thus helping to restore balance between human and capital resources. But recently there has emerged a new theoretical approach, the world economic system perspective, which draws attention to the broader structural factors that influence international migration. In this section we first briefly review the major theses of this new approach and subsequently examine several issues related to Korean immigration to the United States that are suggested by the approach.

The world economic system perspective proposes a clean break with the equilibrium theory of migration. The basic assumption of the perspective is that contemporary international labor migration is caused by the imperatives of capitalism, which is organized on a global scale for worldwide capital accumulation. It is important, therefore, not to put too much weight on individual motivations to migrate, or even on the "push" or "pull" factors operating in the country of origin or country of destination. Instead, primary attention must be given to the logic and the rhythms of the current phase of monopoly capitalism. It is generally recognized that contemporary international migration is basically labor migration, with its dominant direction from peripheral to core industrialized countries.

Theorists who subscribe to some version of this theoretical framework believe that to gain a full understanding of the causes and nature of international labor migration, one must place this movement in the context of the world economic system. They offer two lines of explanation.

The first explanation emphasizes the so-called "development of underdevelopment" process, which is caused in peripheral countries by the penetration of the core, metropolitan capital (Frank, 1967). The resultant processes of surplus extraction, "uneven development" between regions and sectors, "structural dislocations" or "displacement" of surplus labor, and increasing inequality of income and underemployment problems are all believed to be the major factors leading to emigration. In this regard, internal and international migration are intimately related processes and perhaps may not need to be distinguished, as they are influenced by the same externally induced uneven development (Portes, 1978). Noting that emigration/immigration is simply a product of the uneven development inherent in the capitalist mode of production, Castells (1975:36) points out, as major reasons of permanent emigration, such factors as "decomposition of backward productive structures—especially in agriculture; structural unemployment in certain sectors; and the much higher nominal and real wages available in the advanced capitalist countries." Similarly, Portes (1978: 11) argues:

> Sustained labor migration requires the penetration of the political and economic institutions of the dominant society into the subordinate one. This penetration creates imbalances between sectors and institutions of the subordinate society that lead eventually to labor displacement. Imbalances are first induced from the outside but in time become internal to the structure of the weaker societies. These internal imbalances, not invidious comparisons with the wealth of more developed regions, are what underlie sustained processes of labor migration.

Whereas the first explanation for placing migration within the context of the world economic system is concerned with structural causes of emigration from peripheral countries, the second focuses on the economic processes in the receiving countries having advanced capitalist economies. The world economic system theorists argue that the main reason why such countries accept immigrant labor is their need for capital to counter the basic tendency for the rate of profit to fall. Bonacich (1981:63) makes this point most succinctly:

> . . . labor immigration grows out of the logic of capitalist development, which creates a tendency for the profit rate to fall and a cyclical tendency toward crises, and an effort to solve these problems by seeking to increase the rate of exploitation by absorbing new, and cheaper, sources of labor-power.

Immigrant labor alleviates the crises of the current phase of monopoly capitalism in several ways. First, immigrant workers, willing to work for lower pay at longer hours and under worse conditions than native workers, provide a competitive element in the labor market that prevents the indigenous workers from continuing to accelerate their pay and benefit demands. Second, migrant workers—most of whom are of prime working ages, have few dependents, and have been nourished and educated in their home countries—help capitalists achieve tremendous reductions of the "social cost" of production. Magnifying this cost reduction is the selective nature of migration, for migrants are typically the better educated and more vigorous segment of the sending society (Petras, 1980). Third, immigrant labor plays an important role as a regulator of capitalist crises. Castells (1975:55) argues that "immigrant workers are one of the basic elements preventing recessions from turning into crises." In a sense, then, immigrant workers fulfill the role of the "ideal worker-consumer": They are very productive in the expansionary phase of a capitalist economy; they are excludable in the recessionary phase; and they consume little (Castells, 1975). Similarly, Petras (1980:444) observes that immigrant workers "play a unique role in helping maintain an equilibrium for capital during periods of economic fluctuation."

Several other propositions are suggested by the world economic system perspective, but for the present purpose it may be sufficient to keep these basic points in mind and turn to the case at hand. Here we are concerned mainly with three aspects of Korean migration to the United States: (1) the processes in the Republic of Korea that lead to emigration, (2) the effects of emigration on Korean society and economy, and (3) the role of Korean immigrants in the American economy. At the outset, it is important to emphasize that Korean migration to the United States is characterized by labor migration, as evidenced by the predominance of working-age immigrants who are economically motivated and who seek jobs as soon as they arrive in the United States. Therefore, the world economic system perspective should be applicable to the Korean-U.S. migration process.

Structural causes of Korean emigration

In considering structural causes of emigration from peripheral to core countries, we have seen that the world economic system perspective stresses the economic effects of the penetration of the metropolitan capital into the peripheral economy. Actually, there is a great deal of fuzziness in many of the world economic system arguments relating to this point; but the main line of reasoning is that this external penetration leads to uneven development between sectors and regions, and the uneven development, in turn, leads to growing economic inequality and structural unemployment and underemployment. According to the theory, these processes would in time facilitate the displacement of a large labor force and the displaced labor would constitute the source of cheap labor to be exported. These arguments are thus quite consistent with Frank's (1967) thesis of "development of underdevelopment," which he views as an almost inevitable consequence of external economic dependence.

The Korean case, however, raises many difficulties for such an argument. Prior to 1979, the Korean economy, although highly dependent upon the two metropolitan economies of the United States and Japan, achieved remarkable economic growth. There certainly were problems of sectoral and regional disparity in growth rates, but the level of unemployment or underemployment was noticeably reduced, and along with this progress absolute poverty was almost eliminated. Nevertheless, we do not believe that Korea's economic progress has reduced the number of actual or potential emigrants. Furthermore, those who emigrated were, by and large, not the persons who were structurally replaced or the victims of growing economic inequality. On the contrary, they were people who had tended to benefit from the dependent nature of the country's economic growth.

Yet, we do not believe that the Korean experience necessarily disproves the validity of the world economic system perspective, except perhaps its overly economic interpretations. We must realize that the effect of foreign economic penetration into peripheral societies is not restricted to the economic realm but extends to political, social, and cultural institutions. The process occurring within the wide nexus of social institutions and cultural life may be labeled as "structural imbalancing" or "peripheralization." Among the world economic system theorists of migration, Portes (1978) has shown a particular sensitivity to this process. Specifically, he cites two forms of "externally induced structural imbalances" in peripheral societies. One is the articulation of peripheral institutions with those of the center. The emigration of professional workers illustrates this process.

> Professional emigration is basically a consequence of the reproduction of the technical training apparatus of advanced nations in underdeveloped ones. Implanted institutions come to function more in accordance with needs and requirements of the advanced societies than those of the country that receives them (Portes, 1978:18).

In fact, it is not just professional training programs but also the whole educational system and many other institutional practices in the Republic of Korea that have been more or less implanted by American influence since 1945. Given such structural imbalances, the more closely Korea follows the American model of development, the more people there will be whose skills and aspirations cannot be absorbed in Korean society.

The other related form of imbalance or peripheralization touches on the cultural realm. It is widely accepted that peripheral societies have absorbed an increasingly modern culture and the cult of advanced consumption, while denying the mass of their populations the means to participate in it. Portes (1979:433) observes that "the mass media have made sure that the attractions of modern consumerism reach the most remote corners of the country" but that underdevelopment and a highly unequal distribution deny access to these goods to the majority of the population. This situation, as he suggests, may be labeled as the syndrome of "modernity-in-underdevelopment." Migration to the center country where this "modernity" originated is, therefore, one way for individuals to resolve this contradiction.

Attention to structural imbalance in the society and culture of a peripheral country greatly improves our understanding of emigration. But still there is a crucial dimension of imbalance that is missing; it is the political situation that is created by dependence on a powerful foreign country. And this is particularly important for countries like Korea. As Skocpol argues in her critique of Wallerstein (1974), the current theorizing within the world economic system approach tends to make a two-step reduction: "first, a reduction of socio-economic structure to determination by world market opportunities and technological production possibilities; and second, a reduction of state structures and policies to determination by dominant class interests" (1977: 1079). The world economic system theorists tend to undervaluate the significance of incessant politico-military competitions among nations and the specific geopolitical situation of each country as independent factors influencing countries' economic and social development patterns. The Republic of Korea experienced a tragic war 30 years ago and is still under the constant threat of another war. How much of the internal political, social, and even intellectual processes are determined by this experience, and how much of hidden but persistent psychological insecurity is created by it, are difficult to appreciate by those outside the system. Yet, the Korean hostilities were initially created by the major forces in the world system, even though the world system we speak of here is not just the capitalistic economic system but also the politico-military system in which big powers compete with one another for political hegemony. In the absence of relevant data, we suspect that the political insecurity created in the Republic of Korea by such external forces may be one of the most important underlying reasons for Korean emigration. Certainly, political factors have loomed as the most important causes of immigration to the United States from Vietnam and Cuba in recent years, and they will probably play the most important role in accelerating immigration from many politically troubled Asian countries in the near future. It would appear, then, that the structural pressures for emigration in the Republic of Korea do not reside only in economic conditions but include and may even be dominated by political instability and structural imbalances that are the result of that country's integration into the world system.

Implications of Korean emigration for Korea

As far as we know, the Korean government has not established any well-planned official policy on emigration, but it has been concerned mainly with three things: reduction of population pressure, obstruction of any large-scale capital flight, and prevention of any negative effects on social and political stability. Unfortunately, data that might be used to assess the success of this strategy are scarce and those that are available pertain mainly to demographic aspects. One recent study sponsored by the Korea Development Institute in Seoul (Hong and Kim, 1979) estimated the total number of Korean emigrants between 1962 and 1977 to be 317,746, of whom 76 percent went to the United States. This number constitutes slightly less than 1 percent of the total population of the Republic of Korea. But the long-term demographic effects of emigration should be greater than these data indicate, because a high proportion of the emigrant group consisted of women of reproductive age.

When people leave their places of origin, they do not simply reduce the number of human bodies to be fed. They also take other things with them. On the part of the less developed countries, a serious problem associated with emigration is the loss of human capital, the so-called "brain drain." Indeed, the brain drain problem is quite serious in Korea. We have already noted that the current U.S. immigration policy favors immigration of skilled workers and professionals and that the largest category of Korean immigrants are those who have received professional training in Korea. The proportion of the college-educated among the emigrants is about eight times higher than its counterpart among the total Korean population. According to Hong and Kim's estimate, the Republic of Korea has lost about 2.6 million years of schooling by virtue of the emigration that took place between 1962 and 1977. They further estimate that the total government expenditure for the schooling of those who left the country during the 1962–77 period was around 220 billion *won* at their 1976 value (about

458 million 1976 U.S. dollars); to this figure we must add the educational cost to their parents, which totaled about 146 billion *won* (about $304 million) in the same period. The total figure is equivalent to about 2.6 percent of the gross national product in 1977, undoubtedly a tremendous loss for a developing country. There is a growing awareness among researchers of international migration that labor migration from the less developed to the more developed countries is often accompanied by what is sometimes called "reverse foreign aid" given by poor countries to the rich. Newland (1979) estimated that the value of skilled emigrants to the United States, the United Kingdom, and Canada alone was around $46 billion during the period from 1961 to 1972. Presumably, Korea's contribution to this interesting form of development subsidy has been substantial.

So far, the Korean government has not been as sensitive to the brain drain as it has been to the "capital flight" problem. Korean emigration law specifies that emigrants may only take the equivalent of $2,000 per adult and $1,000 per child with them. Legally, there are no other ways to transfer one's property to the country of destination beyond this allowed amount. The Korean government has also restricted emigration of top-level businessmen and high-ranking government officials. There is, however, a widespread belief among Koreans in both the United States and Korea that many Koreans bring a large amount of money to the United States. That capital flight becomes a sensitive issue whenever there is political turmoil in Korea suggests the seriousness of this problem.

The flow of skills and capital is certainly not unidirectional. There is no doubt that recent economic development in the Republic of Korea owes a great deal to educated Americans. We find Koreans with American Ph.D.s in many Korean educational and research institutions, and they are particularly visible among technocrats who have engineered Korean economic development in the past two decades. Because it is plausible that a large proportion of them received some kind of financial assistance from the U.S. government while they were studying in the United States, the assistance can be regarded as U.S. investment in Korean human capital which moved back to Korea. It must be noted, however, that only a small proportion of U.S.-educated Koreans have returned to Korea and, once back in Korea, they have generally contributed to the maintenance of close relations between the two countries. In several ways, then, this kind of U.S. training of

Korean workers furthers the structural imbalances we commented on earlier. But it is impossible to calculate any exact net balance in this two-way flow of human capital between the two countries.

Even if Koreans have to smuggle their money out of Korea, they can send money freely to Korea. According to Korean official statistics reported in Hong and Kim (1979), the amount of remittances from Koreans abroad totaled $1,124 million between 1970 and 1978, of which $757 million originated from the United States. In 1977 remittances from Korean emigrants constituted about 0.4 percent of Korea's GNP. The actual amount of money sent to Korea is probably greater, because this figure does not include the flow (both in cash and goods) that occurs outside the formal banking institutions.

In addition to these tangible capital gains through remittances, the Korean economy has benefitted from Korean businesses in the United States that merchandize such Korean products as wigs, clothes, and plastic items. There has always been a close connection between Korean manufacturing activities at home and the immigrants' businesses in the United States. Development of synthetic hairs and the booming garment industry in Korea have assisted Korean immigrants' economic adaptation tremendously, while Korea in turn has benefited much in penetrating the U.S. consider market.

The role of Korean immigrants in the U.S. economy

As we saw earlier, the world economic system perspective suggests that the main reason why metropolitan capital is willing to accept the immigrant labor is that such labor is cheaper than indigenous labor and not "corrupted" by the national labor movement. World economic system theorists argue, moreover, that the state colludes with capitalists in keeping the immigrant worker's politico-legal status vulnerable and thus economically exploitable. In addition, most economists agree that "monopoly and competitive sector firms are in a somewhat different position in regards to both their immediate need for cheap labor-power and their ability to make use of it" (Bonacich, 1981:47). Generally, competitive-sector firms score higher on both (see also Castells, 1975; Petras, 1980).

The extent to which Korean immigrant workers perform cheap labor in the United States is less clear than is the case of the Mexican illegal migrant workers in the United States or the guest workers in Great Britain and Germany. On the one hand, there is much evidence that Korean immigrants tend to undersell their skills. The college-educated immigrants in semi-skilled manual jobs and exprofessional workers who work as small-scale proprietors, as well as highly educated women in low-paying garment industry jobs, indicate the existence of cheap-labor problems. Other employed Korean workers are by and large concentrated in what is called the "secondary labor market," a market where jobs are fairly unstable and unprotected by unions and where there is no well-defined career mobility ladder. Furthermore, within this general secondary labor market, Korean workers tend to be concentrated in the less desired geographic areas. We noted above that most Korean shops are located in the relatively poor and crime-ridden sections of U.S. cities. Even many Korean physicians and other professional workers tend to work in less popular areas offering fewer rewards. On the other hand, it is difficult to see an association between the dominant economic activities of Korean immigrants and exploitative relationships with capital, large or small. In fact, one of the most interesting features of Korean economic adaptation in the United States is Koreans' avoidance of exploitative labor relations through their ownership of small, independent businesses.

The extent and mechanisms by which ethnic small businesses serve the interests of large capital are not entirely clear. Of course, there are some business activities like contracted garment production or maintenance services where the immigrant small entrepreneurs ("the middlemen minority," in Bonacich's terms) serve the interests of monopoly capital by organizing and controlling their own ethnic labor force. But that is not the case with corner grocery stores, restaurants, clothing stores, and the like where the majority of Korean small businessmen are found. Nor does monopoly capital appear to profit from many professionals who work in less desirable locations.

It seems useful to expand our attention from the narrow interests of capital to the broad interests of professional organizations and consumers whom Korean immigrant workers may serve. It can be argued, for example, that the large number of Korean and other Asian physicians in the United States has served the interests of the American Medical Association (AMA). Rather than establishing more medical schools in the United States, the AMA seems to have preferred bringing in foreign M.D.s, in order to maintain flexibility in its professional labor market, because the flow of foreign trained M.D.s can be cut off at any time. Furthermore, foreign physicians perform an important social function by providing their services to people who live in small towns or in the poor sections of large cities–i.e., to the consumers who are by and large deserted by the native professionals. The latter function is quite similar to the role of Korean small businessmen who serve the racial minority customers in the downtown areas of many U.S. cities. Therefore, we are inclined to view Korean immigrants' contribution to monopoly capitalism as an indirect one–through filling the gaps left by monopoly capital and providing flexibility to some professional labor markets rather than directly providing an exploited labor force. The latter function is performed more frequently by immigrants from other less developed countries.

In many ways, Korean immigrants fit the description of Castells's (1975) "ideal worker-consumer"; they are very productive, they consume little, and they make few demands on the state. The majority of them have been highly educated in their own country and have brought with them a strong competitive spirit to this society. Their contribution to the U.S. economy will continue to be substantial, particularly in filling the cracks in this aging monopoly capitalism.

CONCLUSION

What has been presented above is a somewhat eclectic approach to Korean immigration to the United States. Our purpose was not to develop any theoretical proposition or to test any hypotheses concerning such immigration. Rather, we were interested in identifying the major aspects of recent Korean immigration to the United States and thereafter examining its structural causes and implications. For this latter purpose, we considered the world economic system approach in the light of the Korean experience, particularly because there is much to be gained by placing international migration within the context of the world capitalist system. At the very minimum, many important questions are raised by this approach to the analysis of emigration and immigration–questions that have remained relatively unaddressed; these lead us to an examination of some deeper structural factors that may influence this process. We acknowledge, however, that larger structural reasons do not necessarily subsume individualistic reasons for migration. Although the latter may be shaped and constrained by the former, each set of factors may produce its own influence on an individual's behavior. We believe, therefore, that both the older individualistic approach and the newer world system approach are useful for improving our knowledge of international migration.

At the individual level, it seems that the most important characteristic of Korean immigration to this country is the immigrants' strong motivation toward upward social mobility. Voluntary migration anywhere is undoubtedly motivated by the desire to improve one's life; this seems to be particularly the case among Korean immigrants to the United States. And, as noted above, the majority of Koreans migrating to this country are well-educated and have come from high-status occupations. Most of them are not the victims of peripheral economic development but, rather, likely to be the beneficiaries of this process. They are more likely than nonmigrants to have been part of the modernized sector of the Korean society. When asked why they came to the United States, the majority offered reasons related to social mobility (e.g., better economic opportunities for themselves, or better education for their children).

Of course, not all who possess the same aspirations can expect to migrate to the United States. Recent Korean immigrants, like immigrants from other countries, are more likely than earlier immigrants to have had relatives already in the United States. That is, social networks between the two countries operate as the most important channel, as well as a facilitating factor, for Korean immigration to the United States. It will be interesting to see how this changing pattern of immigration will affect the ways in which Korean immigrants adapt to American society.

Why many Koreans seek to improve their lot in the United States seems at first glance to require a simple answer. The United States is a much richer country than the Republic of Korea; Korea also possesses more limited material resources and a high population density even in rural areas. This answer, however, is too simple. For international migration is caused not simply by comparison of the living standard in one's own society with that in another but also by the articulation of the two economic and social structures. Labor migration is not likely to occur between two societies that are not connected in some way within the larger economic system, no matter how much economic disparity may exist between them. Moreover, poorer economic conditions in the sending country are likely to be systematically related to better conditions in the receiving country. In some cases, people's aspirations that cannot be satisfied in their own society are direct consequences of some powerful foreign influences. For such reasons as these, it becomes important to examine international migration from the world system perspective.

Since World War II, the Republic of Korea has been deeply integrated into the world capitalist system dominated by the United States. What characterizes the "special friendship" between Korea and the United States, however, is not so much economic in nature as it is political and military. The Republic of Korea has acted as a frontier of the U.S. world political system's efforts to block Soviet and Chinese expansion in the Far East. It was the competition of the big powers that divided Korea into two parts, brought about a tragic war in 1950, and produced military confrontations and authoritarian regimes in both Koreas. The political and economic development of the Republic of Korea must, therefore, be understood in the larger framework of the world politico-military system which involves both capitalist and communist societies rather than just within the capitalist world system. Political conditions in the Republic of Korea (e.g., the threat of another war, authoritarian rule, political instability) must be regarded as an important underlying cause of emigration. On the part of the United States, too, political and diplomatic considerations may assume priority over the economic one (i.e., the need for cheap labor) in the acceptance of thousands of Koreans each year.

In the U.S. economy, Korean immigrants do provide cheaper labor. But what seems to characterize their economic activities is not so much how they are exploited but the way in which they try to evade such exploitation through small independent entrepreneurship. They seem to use this method because of their strong mobility orientations and, probably more importantly, because they have come from a country where, as in the United States, aggressive commercial capitalism and the value of education have a long history.

It seems that the role of immigrant labor in the advanced economy varies according to the stage and character of the sending economy. The immigrant labor originating from the peripheral economy may be more likely to fill the most arduous and menial positions, whereas the immigrant labor coming from the semi-peripheral economy may be more apt to fill the gaps in the middle rungs of the economic structure in the recieving society. Or, perhaps, it is not just the economic character of the sending country that shapes the pattern of the immigrants' role in the receiving economy; an equally important influence may derive from certain cultural traditions that they bring with them. In order to be more useful, the world economic system theory must pay closer attention to the historical and cultural context of each sending economy as well as the unique political situation of each country from which the receiving country accepts its immigrant labor force.

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